
# 2011 Atchafalaya Basin Inundation Data Collection and Damage Assessment Project

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## Executive Summary

This report was prepared by the Louisiana Geological Survey at Louisiana State University for the Louisiana Department of Natural Resources-Atchafalaya Basin Program (LDNR). The report documents the impacts of the 2011 Mississippi River flood event and associated diversions on the Atchafalaya Basin. Its purpose is to document in one report anecdotal, qualitative and quantitative information relative to the flood event generated by various agencies, academic institutions, non-governmental organizations and other stakeholders. More specifically, the report focuses on the impacts that floodwater had on Atchafalaya Basin resources and assets, and on the impacts to public health and safety.

The project is composed of a data analysis and collection phase, and a data compilation and graphic display phase. Field measurements were made starting May 19, 2011, and ended in November 2011.

This flooding event impacted basin residents and users, the oil and gas industry, agriculture and forestry, sport and commercial fisheries, fish and wildlife, wildlife management areas and a wildlife refuge, roads, and the tourist industry. There was a reduction in production of approximately 2,000 barrels/day of oil and 17.9 million cubic feet/day of natural gas. Approximately 95,500 acres of agricultural land were inundated by this flooding event. A number of boat landings were flooded and some of them received silt deposits requiring removal. A number of individual reports have or will be prepared and released by various agencies and groups. Information available at the time of the preparation of this report is included.

A number of different organizations collected field measurements and samples within the Atchafalaya Basin during the flood event. Those efforts focused on water quality parameters. The first six collections occurred on a weekly schedule; the frequency of collection decreased to biweekly for three cycles, then to monthly starting August 4, 2011 and extending into the fall. Field samples were collected for the LDNR by the Louisiana Department of Wildlife and Fisheries, Louisiana Department of Environmental Quality, Louisiana State University, U.S. Geological Survey, U.S. National Park Service, and U.S. Fish and Wildlife Service.

Laboratory analysis has been performed by the following agencies/entities: Louisiana Department of Environmental Quality, Louisiana Department of Health and Hospitals, Louisiana Department of Wildlife and Fisheries, Louisiana Geological Survey, U.S. Geological Survey, Prof. John White of LSU's Department of Oceanography and Coastal Sciences, Prof. Richard Keim of LSU's School of Renewable Natural Resources, Prof. Robert Cook of LSU's Department of Chemistry, Prof. Alexander Kohler of Tulane University's Department of Earth and Environmental Sciences, and Prof. Scott Durelle of Virginia Tech's Department of Biological Systems Engineering.

This report was prepared by the Louisiana Geological Survey with the assistance of LDNR's Atchafalaya Basin Program under DNR contract 2045-11-01 with funding provided by the Coastal Protection and Restoration Authority of Louisiana through the LCA Science & Technology Program Office and by the Federal Emergency Management Agency's Assistance Grant Program.

The report contains in excess of 5,000 analyses as well as months of gaging data collected from a multitude of sites. In addition, supplemental data may have been added on the database CD which will be compiled shortly after this report was completed. It is an archive of the information collected and made available to the authors and collaborators during the preparation of this report. The number of analyses collected as of the completion of this report is summarized on the following table:

**Summary of Site Sampled and Analytical Data Collected**

| Number of | Total | USACE | USFWS | USGS | USGS-NASQUAN | DEQ | DHH | DWF | LSU-Chem Cook | LSU-RNR-Keim | LSU-RNR-Kelso | LSU-OCS-White | LSU-LGS | Audubon | VT-Durelle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling sites | 298 | | 11 | 127 | 6 | 1 | 5 | 27 | | | 113 | | | 8 | |
| Gaging sites | 179 | 49 | | 124 | | | | | | | | | | 6 | |
| Field parameter measurements | 1464 | | 100 | 351 | 76 | 4 | | 294 | | | 639 | | | | |
| Nutrients analyses | 1154 | | | | 76 | 4 | | | | | | 486 | 469 | | 119 |
| Cations analyses | 668 | | | | 76 | 4 | | | | | | | 469 | | 119 |
| Isotope analyses | 560 | | | | | | | | | 402 | | | | | 158 |
| VOC analyses | 9 | | | | | 4 | 5 | | | | | | | | |
| Other analyses | 128 | | | | 76 | 4 | | | | | | | | | 48 |
| TSS analyses | 749 | | | 297 | | | | | | | | | 452 | | |
| Fluorescence analyses | 144 | | | | | | | | 144 | | | | | | |
| Synoptic measurements | 333 | | | 333 | | | | | | | | | | | |

Although many aspects of the economic impact of the flood on the Basin cannot be readily estimated due to the lack of available information, using the data collected from various agencies, parishes and individuals, the known impact can be estimated at over $56,000,000. The information collected as of the completion of this report is summarized on the following table:

**Summary of Economic Impact Data Collected**

| Economic Sector | Agency/Stakeholder | Impact to | Economic Impact |
|---|---|---|---|
| Agriculture | LSU-Ag | Crop and livestock | $44,969,387 |
| Wildlife | LDWF | Black bear and Deer | $870,000 |
| Fisheries | | | Unknown |
| Infrastructure | LDWF | Repairs at WMAs | $93,200 |
| Infrastructure | LDOTD | Response and repairs | $3,402,945 |
| Infrastructure | St Mary Parish | Repair boat launches | $3,000,000 |
| Infrastructure | Private | Repair boat launches | $583,715 |
| Infrastructure | Private | Homes and camps | Unknown |
| Crude Oil Production | Private | Shut-in production | $2,448,072 |
| Natural Gas Production | Private | Shut-in production | $612,071 |
| Tourism | USACE | WMAs | $384,000 |
| Industrial Production | | | Unknown |
| Navigation | | | Unknown |
| | | **Total** | **$56,363,390** |

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### Abbreviations

| | |
|---|---|
| ABP | Atchafalaya Basin Program (LDNR) |
| DO | Dissolved oxygen |
| CPRA | Coastal Protection and Restoration Authority of Louisiana |
| GOHSEP | Governor's Office of Homeland Security and Emergency Preparedness |
| EC | Electrical Conductivity/Specific Conductivity |
| LCA | Louisiana Coastal Area Program |
| LDAF | Louisiana Department of Agriculture and Forestry |
| LDEQ | Louisiana Department of Environmental Quality |
| LDHH | Louisiana Department of Health and Hospitals |
| LDNR | Louisiana Department of Natural Resources |
| LDOTD | Louisiana Department of Transportation and Development |
| LDWF | Louisiana Department of Wildlife and Fisheries |
| LFWC | Louisiana Fisheries and Wildlife Commission |
| LSU | Louisiana State University |
| LWFC | Louisiana Wildlife and Fisheries Commission |
| NASA | National Aeronautics and Space Administration |
| NPS | U.S. National Park Service |
| NWR | National Wildlife Refuge |
| OHSEP | Office of Homeland Security and Emergency Preparedness |
| TAG | Technical Advisory Group (ABP) |
| TSS | Total Suspended Solids |
| SONRIS | Strategic Online Natural Resources Information System |
| USACE | U.S. Army Corps of Engineers |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Survey |
| VOCs | Volatile Organic Compounds |
| VT | Virginia Polytechnic Institute and State University |
| WMA | Wildlife Management Area |

### Units

| | |
|---|---|
| Bbl | barrel (US) |
| cfs | cubic feet per seconds |
| ºC | degree Centigrade |
| MCF | thousand cubic feet |
| mg/L | milligrams per Liter |
| NTU | Nephelometric Turbidity Unit |
| s.u. | pH standard units |
| µS/cm | micro Siemens per centimeter |

## Introduction

The 2011 Mississippi River flood event represents the second time that the U.S. Army Corps of Engineers (USACE) opened the Morganza Spillway (a.k.a. Morganza Control Structure) to divert Mississippi River water into the Morganza Floodway. The structure was completed in 1954 and has the capacity to divert up to 600,000 cubic feet per second (cfs) from the Mississippi River. It is operated when the Mississippi River flow at the Red River Landing is predicted to exceed 1,500,000 cfs. The structure was only opened once prior to the 2011 flood event. In 1973, the structure was opened for a total of 57 days (April 17 to June 13, 1973). Forty two bays of the structure were briefly opened on April 17, 1973, but for most of the duration only 20 bays remained open.

This report was prepared by the Louisiana Geological Survey (LGS) at Louisiana State University (LSU) in partial fulfillment of Louisiana Department of Natural Resources (LDNR) contract No. 2045-11-01. The report documents the impact of the 2011 Mississippi River flood event and associated diversions onto the Atchafalaya Basin of Louisiana (Figure 1). A timeline of the key dates of the 2011 Mississippi River flood event as it applies to the Atchafalaya Basin is presented in Table 1.

**Table 1. Timeline of the 2011 Atchafalaya Basin Flooding Event**

| Date (2011) | Events |
|---|---|
| April 19th | Beginning of LDNR flood event monitoring activities |
| April 25th | Date identified by FEMA as the beginning of the flood event. |
| May 6th | Louisiana's Governor requests an Emergency declaration for 14 parishes (a total of 34 parishes will declare a State of Emergency) |
| May 9th | USACE opens the Bonnet Carre Spillway |
| May 12th | Six Louisiana parishes issue voluntary evacuation |
| May 14th | USACE opens the Morganza Spillway. St. Landry Parish issues a mandatory evacuation order; voluntary orders remain in effect for Iberia, Iberville, Pointe Coupee, St. Martin and St. Mary. |
| May 19th | Governor Jindal requests U.S. Dept. of the Interior's assistance and recovery programs for Louisiana's recreational and commercial fishing, hunting and eco-tourism industries impacts. |
| July 7th | Date designated by FEMA as the end of the flood event. The USACE closes the last bay of the Morganza Spillway |
| Aug. 18th | The President of the United States issued a major disaster declaration for 15 parishes including Pointe Coupee, St. Landry, St. Martin and St. Mary |
| Nov. | End of flood monitoring event |

The following actions were taken by LDNR and other state agencies prior to the opening of the Morganza Spillway, based on concerns regarding Atchafalaya Basin assets and resources, as well as present and future risk to public health and safety. The actions taken included the following:

- notification to oil and gas operators, pipelines and disposal facilities to take measures necessary to secure operations;
- notification to stakeholders to secure or remove assets;
- securing of Wildlife Management Areas by the Louisiana Department of Wildlife and Fisheries (LDWF);
- development by LDNR, and implementation by the Coastal Protection and Restoration Authority of Louisiana (CPRA) and the Louisiana Department of Transportation and Development (LDOTD), of a plan to protect the Atchafalaya Welcome Center and LDOTD communications assets in that area. In addition, the Louisiana Department of Culture, Recreation and Tourism removed most assets from the Atchafalaya Welcome Center building as precautionary measure; and
- coordination and development of a monitoring plan in conjunction with members of the LDNR's Atchafalaya Basin Program's Technical Advisory Group (TAG).

The initial opening of Morganza Spillway gates (Figure 2) by the USACE during this flood event began May 14, 2011, with two gates being opened on that date (Figure 3). Over the course of its operation, up to 17 gates were opened, reaching a maximum discharge of 182,000 cfs on May 18, 2011 (Figure 3). During the time the Morganza Spillway was open the flow of water was often over 100,000 cfs, which was approximately 7% of the Mississippi River's flow at Tarbert Landing (USGS gage #07295100), Pointe Coupee Parish, Louisiana, and approximately 15% of the Atchafalaya River flow at Simmesport (Figures 4 and 5). By comparison closure of gates occurred over a far more extended period of time. By June 6 only seven gates remained open (WAFB, 2011). The last gate was closed on July 7, with some residual flow from the Morganza forebay allowed to continue to drain.

The flood wave took some time to move southward through the Atchafalaya Basin as indicated by stage readings. The flood crest arrived at the Simmesport, Louisiana, gaging station between May 23 and May 24 (Figure 5). The flood crest of 35.68 feet arrived at the Melville gaging station on May 24, and reached 23.1 feet at the Butte La Rose gaging station on May 27. It took approximately three days for the flood crest to travel the 59.9 miles between Simmesport and Butte La Rose. Along the Mississippi River, the flood crest arrived on May 18 at the Red River Landing and Baton Rouge gaging stations, and on May 19 in New Orleans (Figure 6).

The flood for the Morganza Floodway and the Lower Mississippi River was the tail end of a flood that started as far north as St. Paul, Minnesota, and was at or near record stages in a variety of cities south of St. Paul, Minnesota: Guttenberg, Iowa, within about 2.7 feet of the record flood (Love, 2011) flooding at 50-year high in East Dubuque, Illinois (Wisinewski, 2011) record flooding in Cairo, Illinois (Christian Science Monitor, 2011) record crests occurred in Natchez and Vicksburg Mississippi near record flood crests were observed in Memphis, Tennessee; Arkansas City, Arkansas; Helena, Arkansas; and Greenville, Mississippi (Oblack, 2011) Caruthersville, Missouri, had a record flood crest (Moore, 2011). The crest of the flood took over a month to move south from comunities in Minnesota to Louisiana and Mississippi (Figure 7).

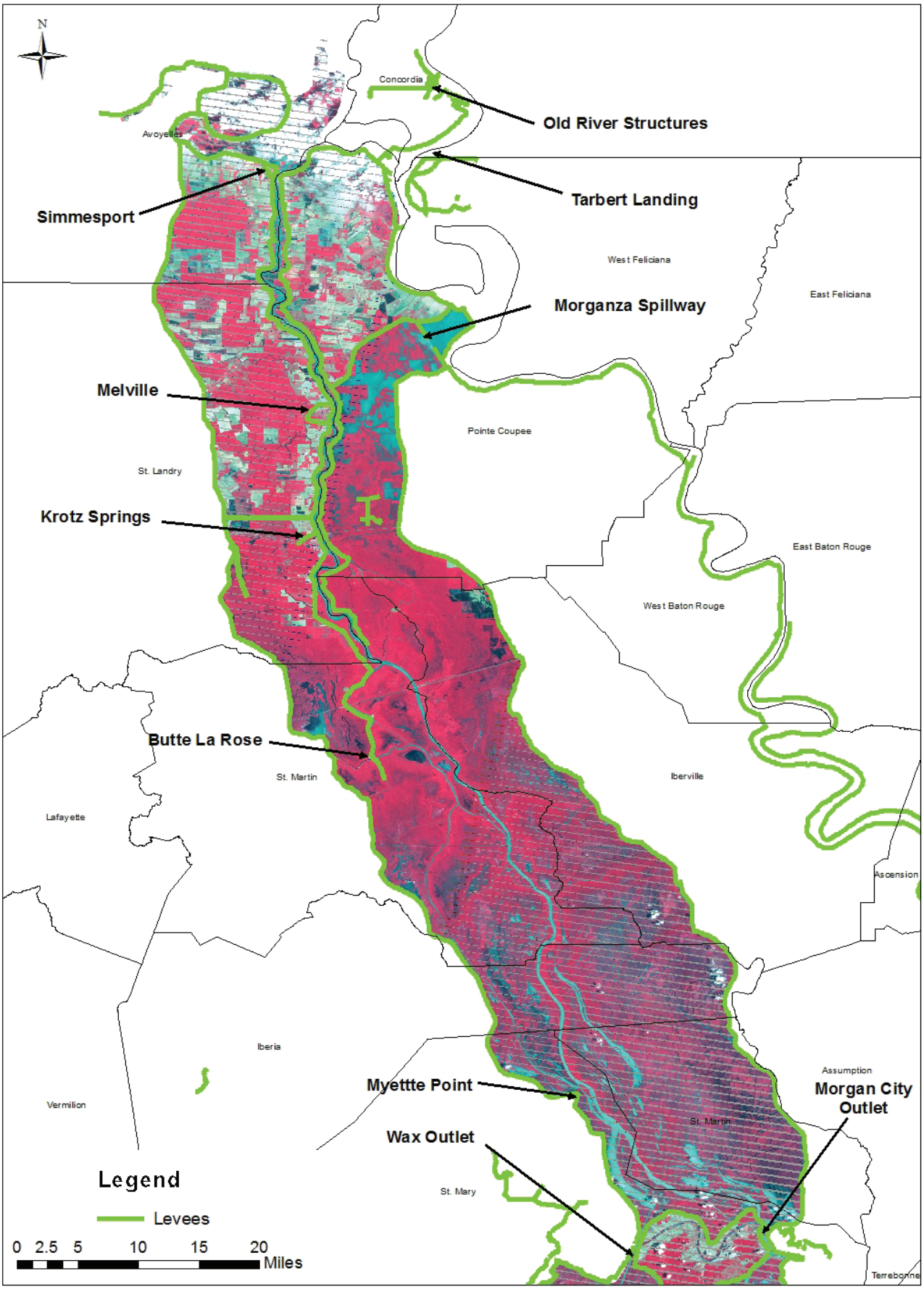


*Figure 1. Map of the Atchafalaya Basin (background satellite imagery from the May 18, 29011 Landsat7).*

John Clark, Iberville Parish Government

*Figure 2. Aerial view of the Morganza Spillway on May 17, 2011.*

## Extent and Duration of Inundation

The extent and duration of flooding was first forecasted by USACE modelers in early May (Figures 8 and 9). Peak flood height in the Upper Flat Lake area was estimated at up to 25 feet with the Morganza Floodway at 50% capacity (300,000 cfs). During the 2011 flood, the Morganza Flood Control Structure was only operated by the USACE at a maximum of 182,000 cfs or 30% of capacity. The actual extent and duration of flooding within the Atchafalaya Basin can be estimated based on National Aeronautics and Space Administration's (NASA) Landsat satellite imagery taken on April 16, May 18, June 3 and June 19,2011, and recorded gaging station stage levels within the Basin.

### Inundated Areas

Elevated discharge had already begun flowing down the Atchafalaya River in late February. On April 6th the lower portion of the Atchafalaya Basin already exhibited signs of rising water. Starting on May 14th, floodwaters began impacting the Morganza Floodway (Figure 10). Rising water can also be seen in the May 18th Landsat imagery but is no longer visible on the July 13th imagery (Figure 11). These observations are consistent with the flooding predictor presented by the USACE (Figure 8). Within the Morganza floodway, it can be observed that on April 6th the fields were dry while on May 18th they are flooded (Figures 10 and 11). It should be noted that the July 3rd imagery shows that some fields had retained water through that date. Based on the May 18th Landsat 7 imagery (Figure 12), it was estimated to be between 600,000 (app. 60%) and 768,000 acres (app. 72%) of the basin area (app. 1,068,000 acres), were impacted by flood water.

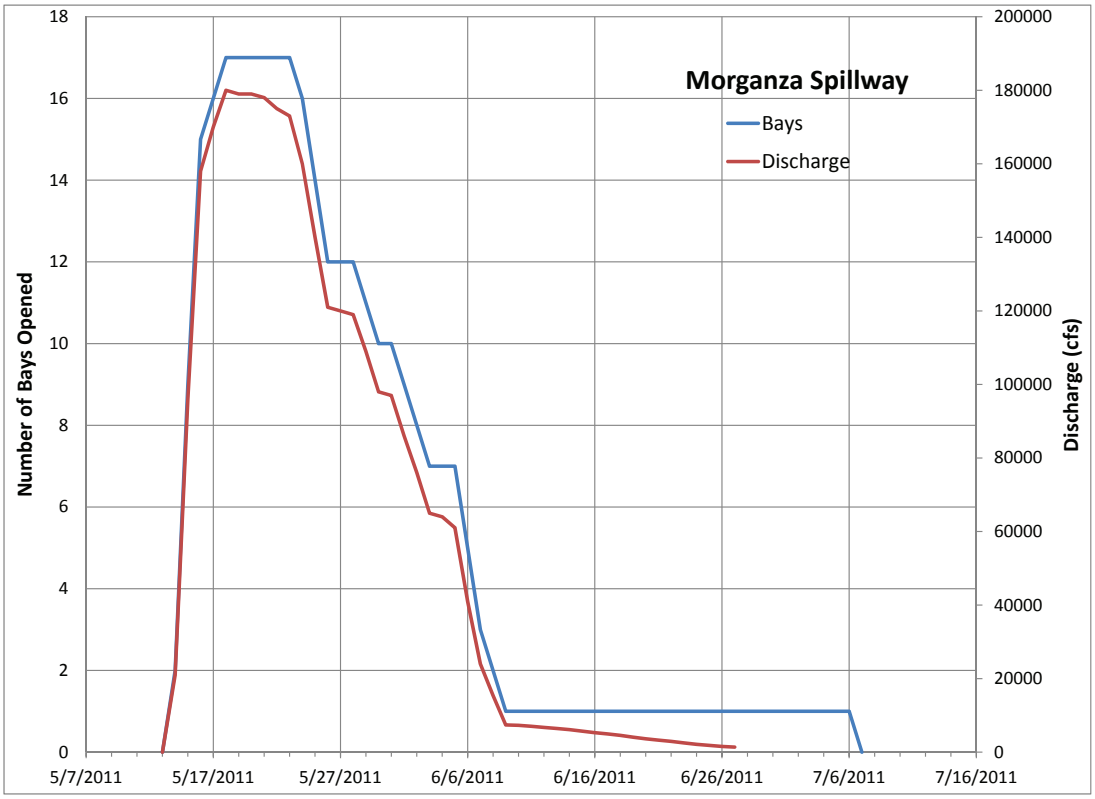


*Figure 3. Opening sequence of the Morganza Spillway by the USACE.*

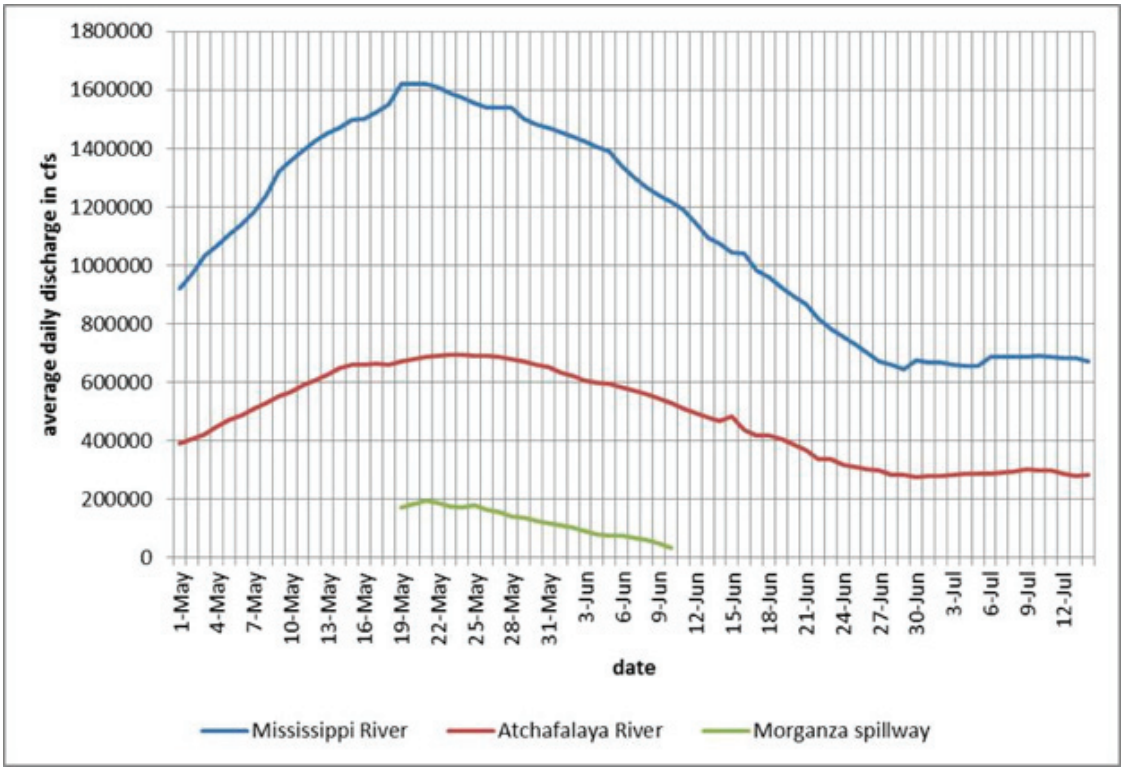


*Figure 4. Average daily flows between May 24 and July 14, 2011 (U.S. Army Corps of Engineers, 2011a; and WAFB, 2011).*

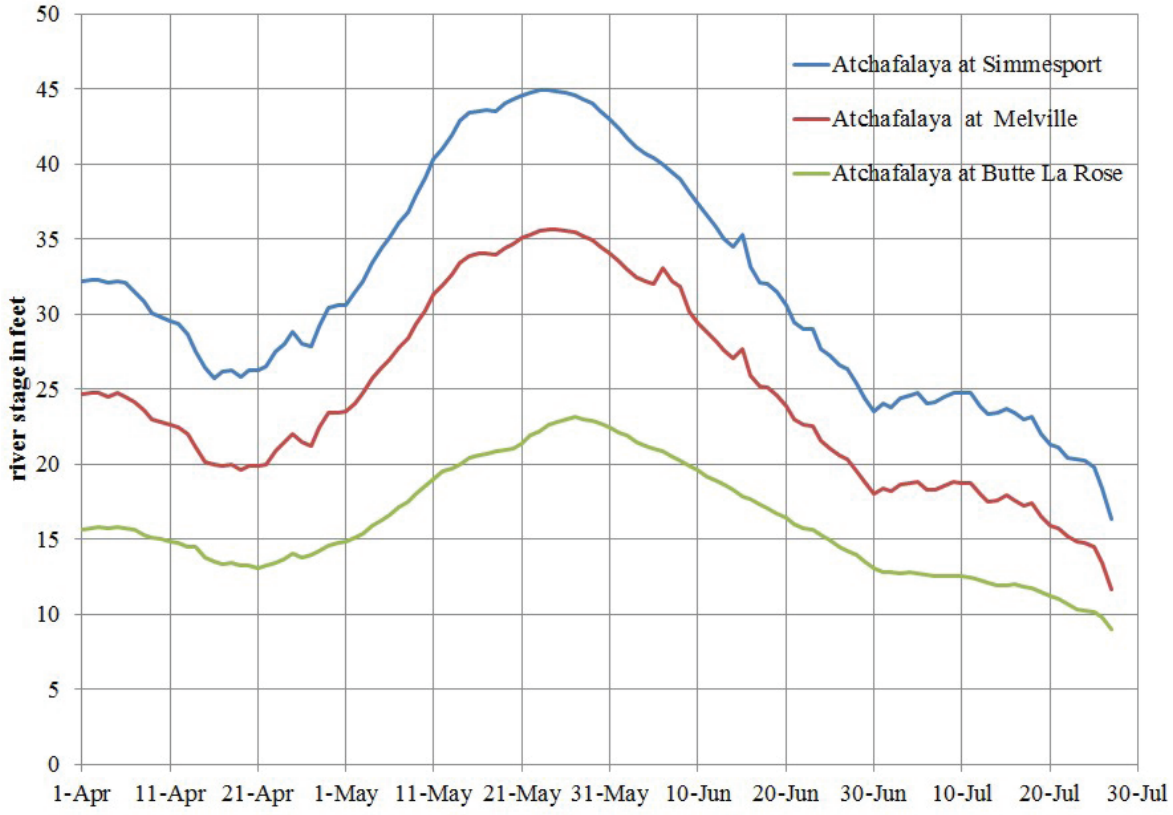


*Figure 5. Water levels along the Atchafalaya River from April 1 to July 27, 2011.*

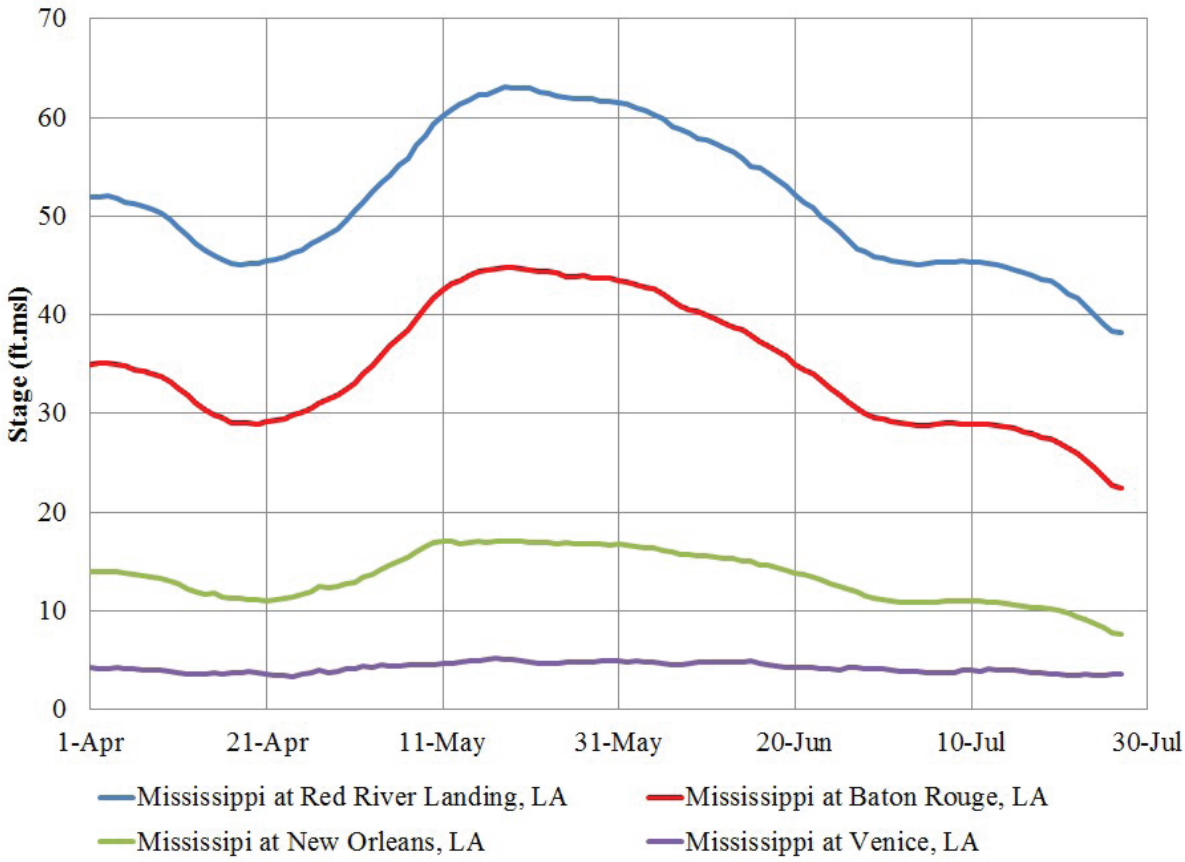


*Figure 6. Water levels along the Mississippi River from April 1 to July 27, 2011.*

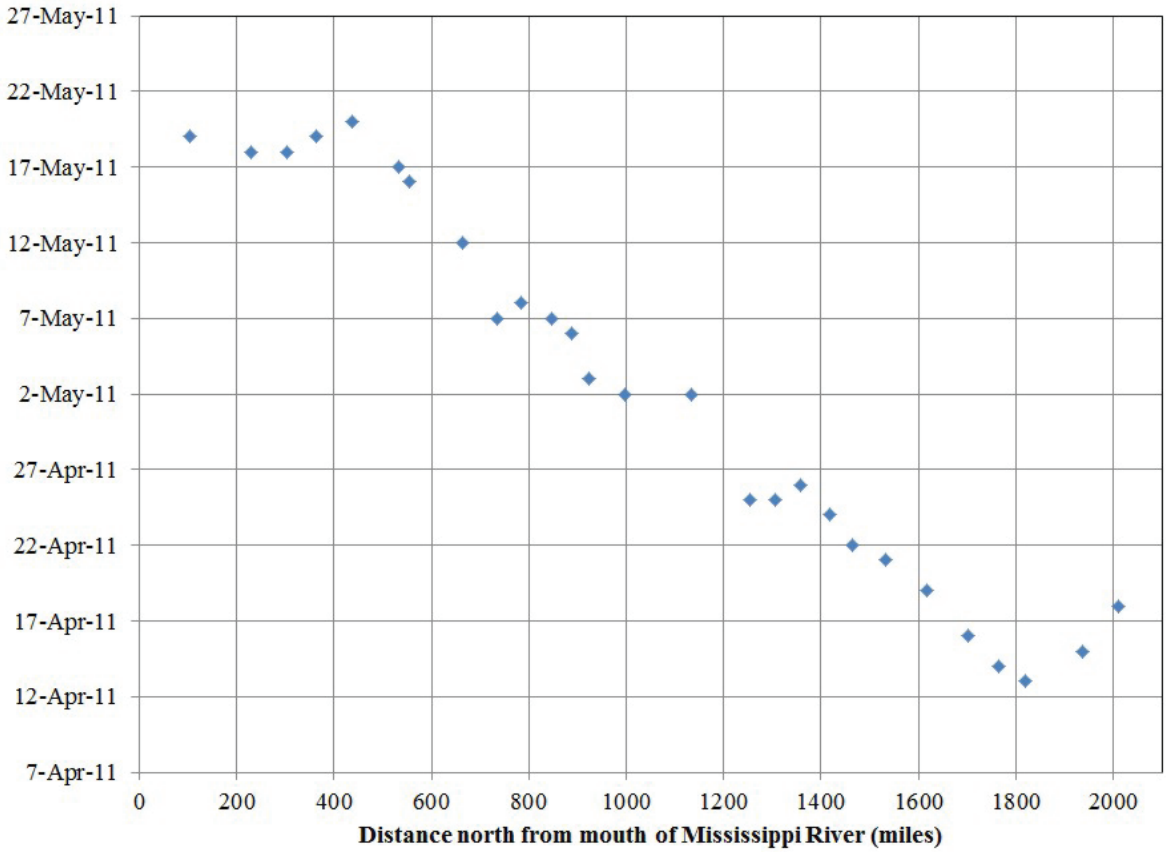


*Figure 7. Arrival times of the Mississippi River flood crest at various gaging stations.*

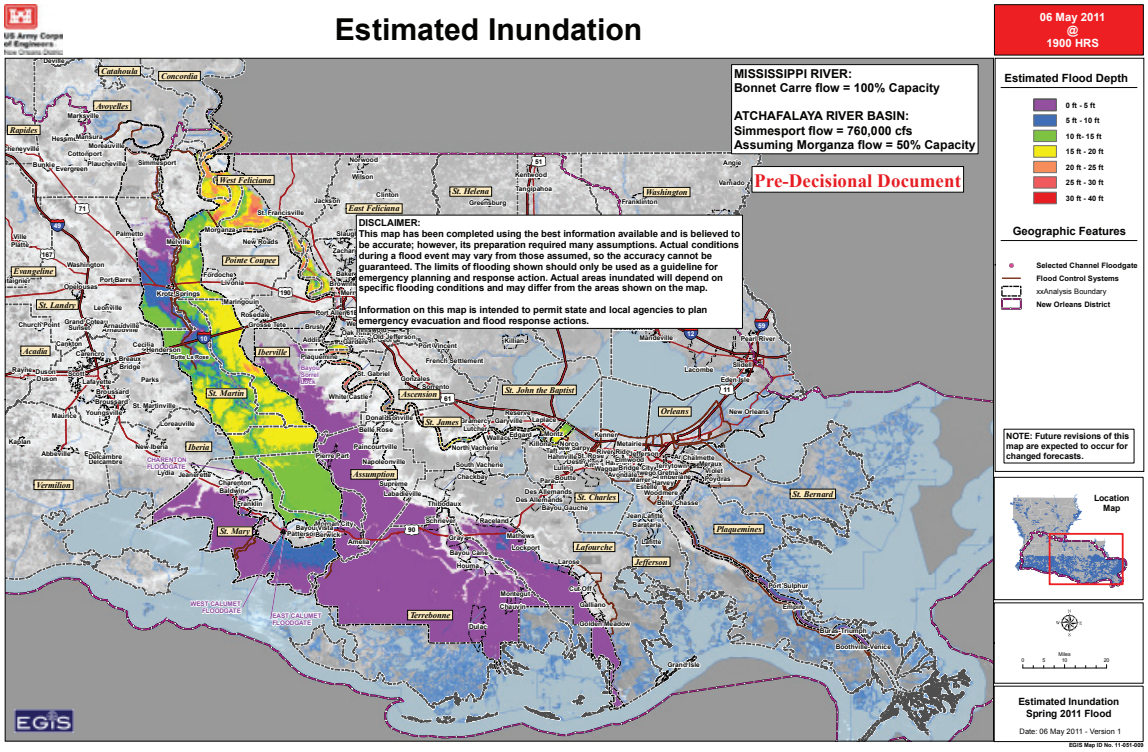


*Figure 8. USACE May 6, 2011 forecasted inundation of the Atchafalaya Basin (Scenario assumes that the Morganza Spillway is operated at 50% capacity; source: USACE).*

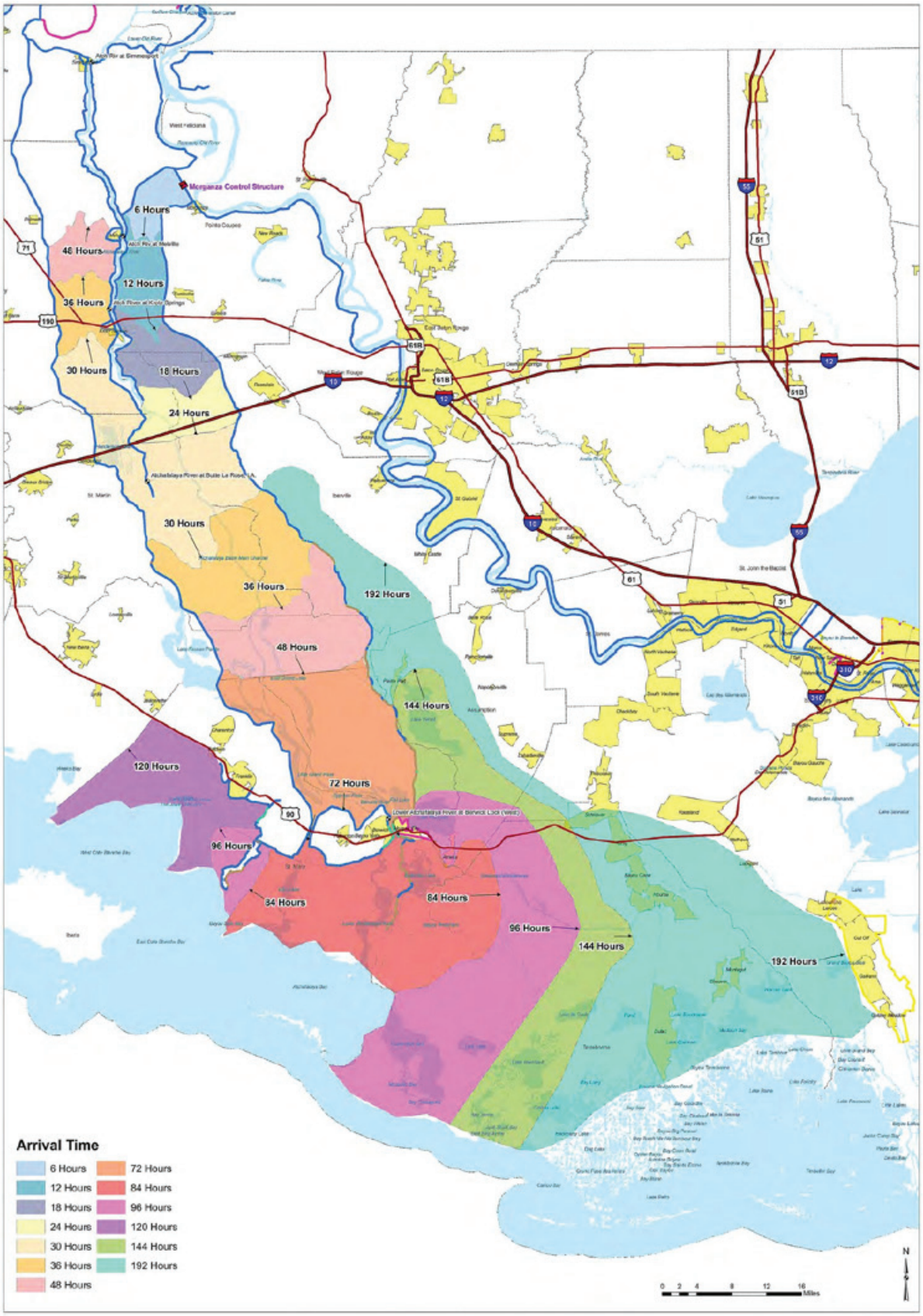


*Figure 9. USACE May 12. 2011 estimated flood travel time down the Atchafalaya Basin (Scenario assumes that the Morganza Spillway is operated at 50% capacity; Source: USACE).*

John Clark, Iberville Parish Government

*Figure 10. Aerial view of flooded field in the Morganza Floodway on May 17, 2011.*

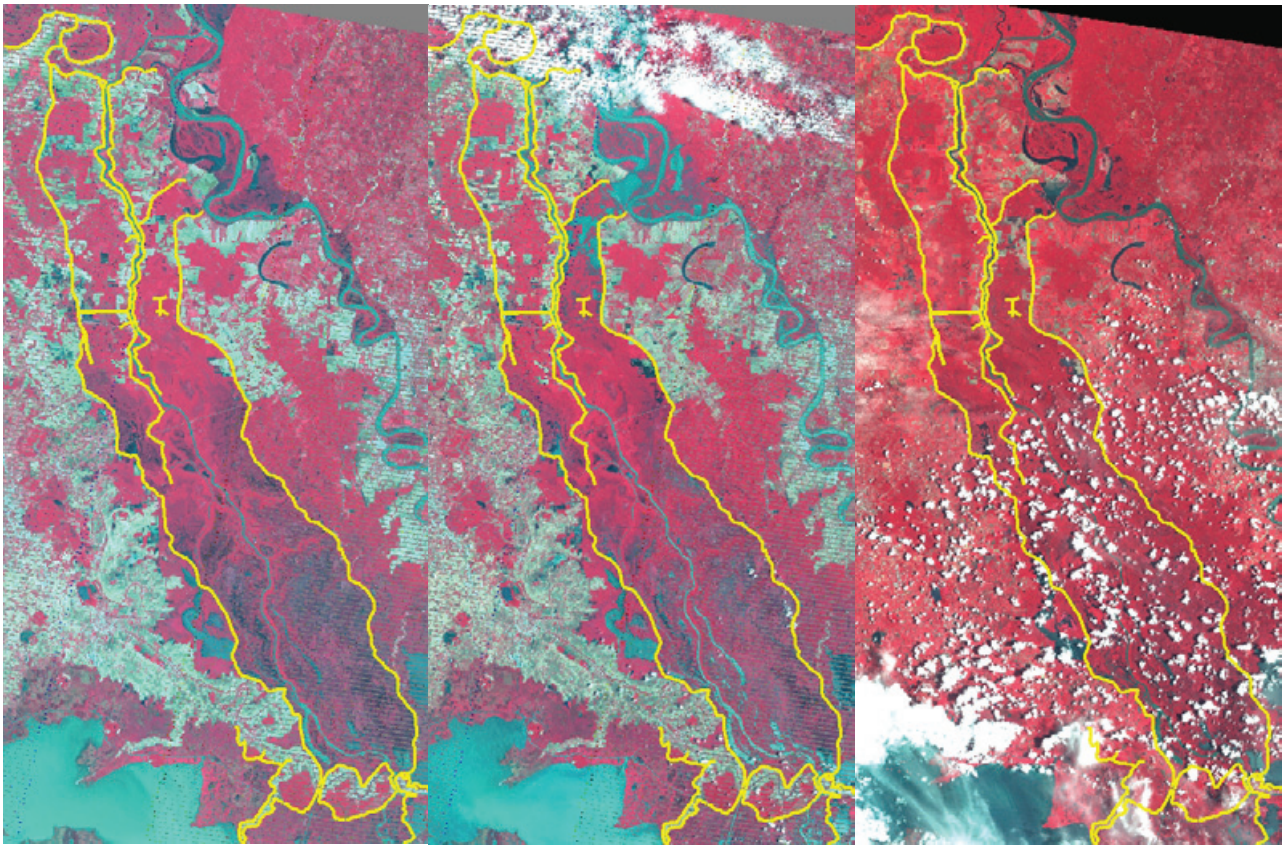

*Figure 11. Satellite imagery collected on April 6, May 18 and July 13, 2011 (from left to right – source: Landsat7 imagery).*

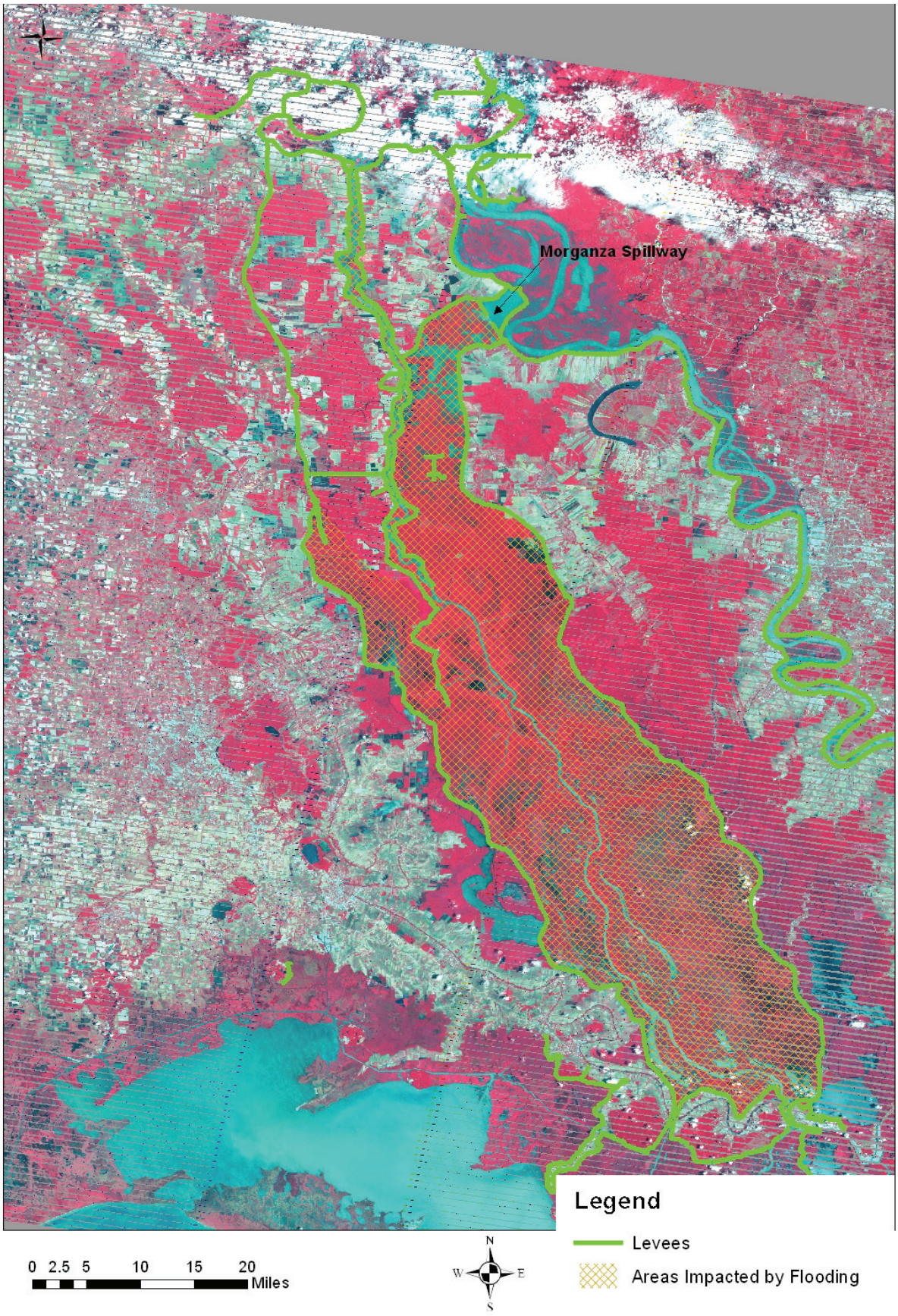


*Figure 12. Estimated areas in the Atchafalaya Basin impacted by flood on May 18, 2011 (the background satellite imagery is from the May 18, 2011 Landsat7 imagery).*

## Flood Duration and Flood Travel Time

### *Flood Duration*

From the initial increase in flow which began on February 23, 2011 until the flood water had receded and the river stage returned to pre-rising condition (October 19th, 2011), the flood represents a 229 day long cycle (Figures 13 and 14). Although 72% of the basin was impacted by the flood, flood stage was not reached at Simmesport, Melville and Krotz Springs (Table 2). These three gages are located along the segment of the Atchafalaya River that is confined within river levees. The river levees end south of Krotz Springs, at the St. Landry/St. Martin parish line, where the floodwater contribution from the Atchafalaya River and the Morganza Floodway merge. Below this point action, flood and moderate flood stages were exceeded (Table 2).

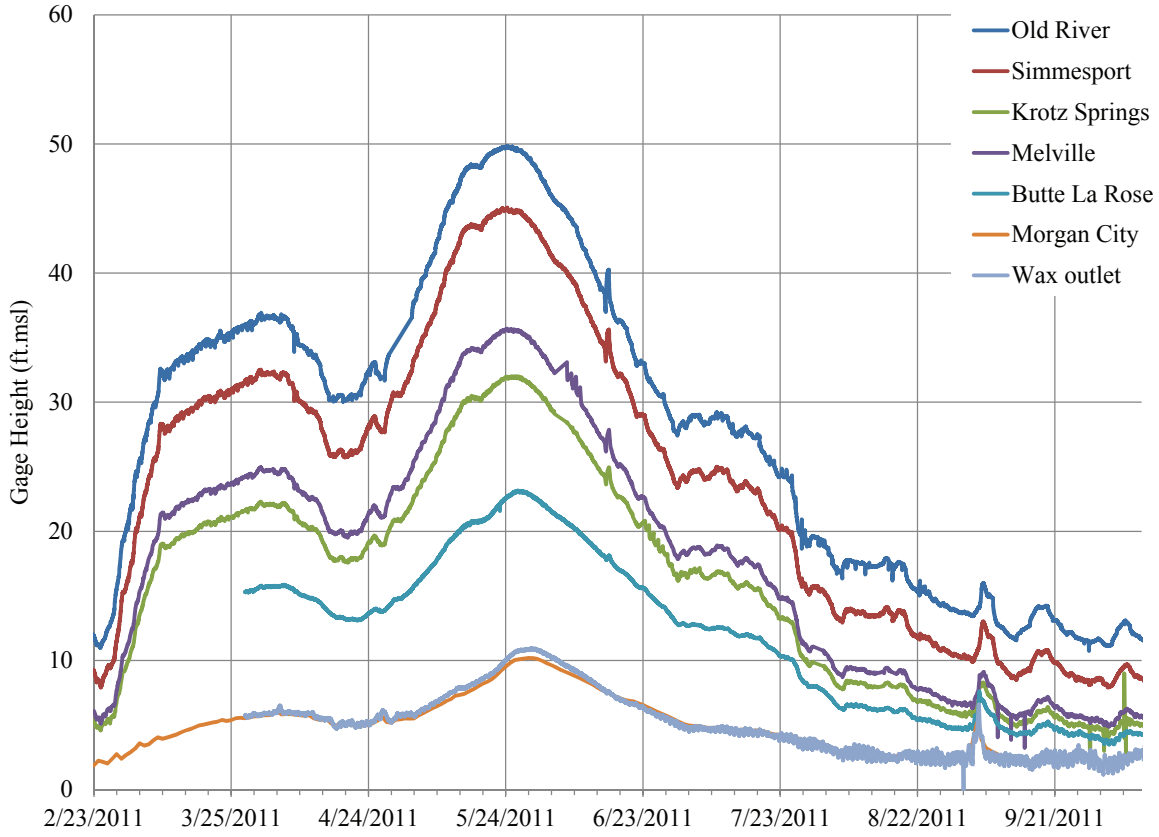


*Figure 13. Peak stage along the Atchafalaya Basin (Source: USGS and USACE gaging stations data – see Appendix E).*

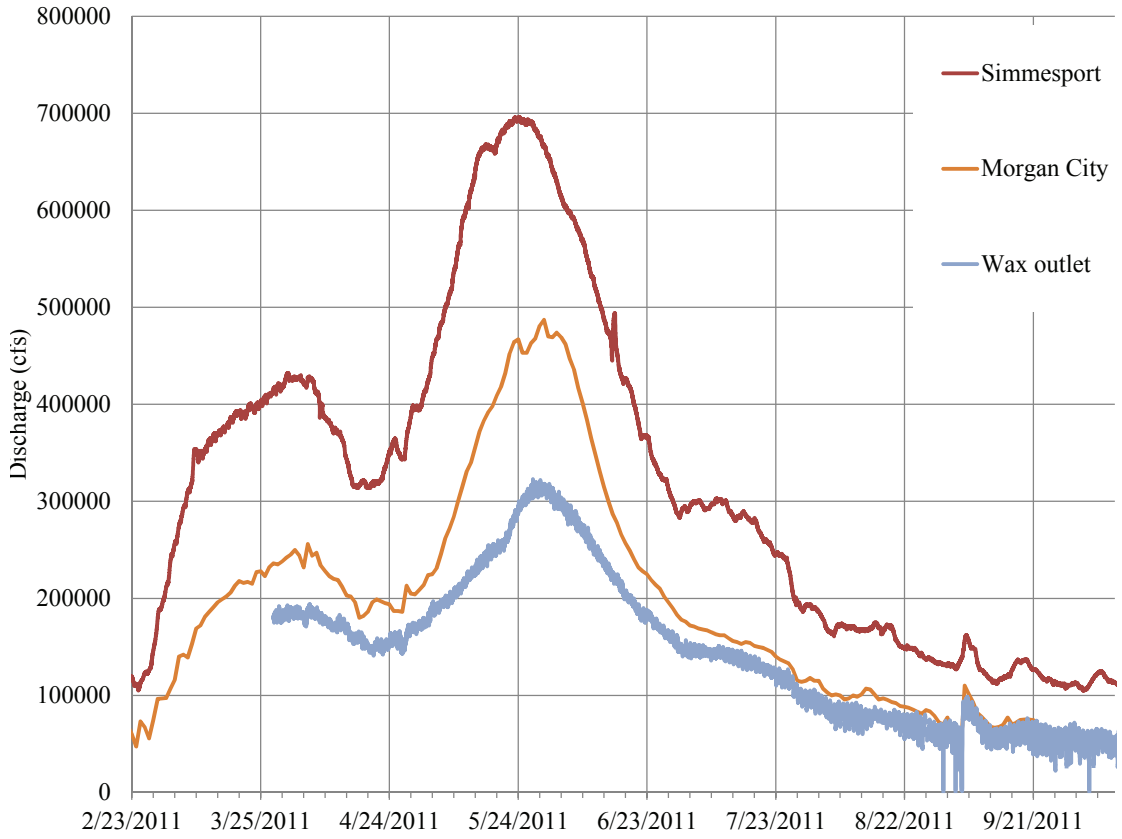


*Figure 14. Peak Discharge along the Atchafalaya Basin (Source: USGS gaging stations data – see Appendix E).*

**Table 2. Duration of Flood Stages at Gages Monitored by National Weather Service**

| Gage | Category/Duration | Major Flood Stage | Moderate Flood Stage | Flood Stage | Action Stage |
|---|---|---|---|---|---|
| Simmesport | Flood category (ft) | 60 | 50 | 47 | 46 |
| | Duration (days) | 0 | 0 | 0 | 0 |
| Melville | Flood category (ft) | 50 | 45 | 41 | 40 |
| | Duration (days) | 0 | 0 | 0 | 0 |
| Krotz Springs | Flood category (ft) | 43 | 40 | 37 | 36 |
| | Duration (days) | 0 | 0 | 0 | 0 |
| Butte La Rose | Flood category (ft) | 28 | 27 | 25 | 23 |
| | Duration (days) | 0 | 0 | 0 | **2** |
| Myette Point | Flood category (ft) | 26 | 20 | 15 | 14 |
| | Duration (days) | 0 | 0 | **6** | **13** |
| Morgan City | Flood category (ft) | 12 | 7 | 4 | 4 |
| | Duration (days) | 0 | **38** | **138** | **138** |

*Source: National Oceanographic and Atmospheric Administration*

***Flood Travel Time***

The USACE model predicted that the arrival time of the peak flood stage would be 72 hours after the opening of the structure (Figure 9). The Morganza Spillway was opened at 11:30 am on May 14th; maximum flow was achieved on May 18th (Table 3). Based on the gaging data collected, it took in excess of 7 days for the flood peak to travel through the length of the Atchafalaya Basin. The retardation of the flood peak has been anecdotally associated by others to the drought conditions afflicting Louisiana at the time.

**Table 3. Peak Stage and Discharge at Basin Gaging Stations**

| Gage | Date | Time | Stage (ft.msl) | Discharge (cfs) |
|---|---|---|---|---|
| Morganza | 5/18/11 | | | 182,000 |
| Old River | 5/22/2011 | 7:45 PM | 49.66 | |
| Simmesport | 5/22/2011 | 6:15 AM | 44.83 | 692,000 |
| Melville | 5/24/2011 | 7:00 AM | 35.69 | |
| Krotz Springs | 5/26/2011 | 3:00 PM | 31.99 | |
| Butte La Rose | 5/26/2011 | 1:15 AM | 23.08 | |
| Morgan City | 5/29/2011 | | 10.19 | 481,000 |
| Wax Outlet | 5/29/2011 | 8:45 PM | 10.93 | 317,000 |

*Source: USGS and USACE gaging stations data – see Appendix E.*

**Summary of Reported Impacts (Physical, Economic, etc.)**

Crops including rice, soybeans, cotton, sugarcane, corn, wheat, sorghum, hay and crawfish (aquaculture) are grown in the Morganza Floodway. An LSU Ag Center agent reported that the Morganza Floodway forebay was a near total loss for agriculture in 2011. Some effort to replant soybeans occurred in the Morganza Floodway. Cattle were relocated out of the Morganza Floodway prior to its opening; pasture began to recover on the high grounds following the closure of that floodway.

## Impact to Agriculture

***Cropland***

Approximately 95,500 acres of crops (Strain, 2011; and Guidry, 2011) were inundated by the flood event caused by the opening of the Morganza Spillway (Table 4 and Figure 15). Approximately 60 percent of the flooded cropland was fields of soybeans and forage. Most (>50%) of the crops were likely lost for the full season (Table 4). The economic impact of the crop loss was estimated by the LSU AgCenter at approximately $45 million (Guidry, 2011). The greatest economic loss (Table 4) was associated with the inundation of corn and soybeans fields ($35 million).

***Aquaculture***

Based upon a press release by the LDAF dated June 23, 2011 (Strain, 2011) aproximately 370 acres of land in aquaculture was inundated by the flood event.

***Livestock***

Based upon a document released by the LSU AgCenter (Guidry, 2011) approximately 31,300 acres of pasture were impacted by the flood event (Table 4). The report also indicated that 4,800 head of cattle were evacuated prior to the flood and only 12 head of cattle were lost as the result of drowning. The economic loss was estimated at $1,091,250 for the lost forage and $10,440 for the drowned cattle.

**Table 4. Agriculture Production Impacted by the Opening of the Morganza Spillway.**

| Commodity | Total Acres Impacted | Acres with 100% Yield Loss | Acres With Partial Yield Loss | Economic Impact |
|---|---|---|---|---|
| Corn | 18,925 | 12,175 | 6,750 | $15,224,119 |
| Cotton | 7,500 | 3,550 | 3,950 | $4,841,193 |
| Grain Sorghum | 739 | 739 | 0 | $434,315 |
| Rice | 2,632 | 2,632 | 0 | $2,000,270 |
| Soybeans | 33,134 | 31,834 | 1,300 | $19,485,032 |
| Sugarcane | 836 | 836 | 0 | $1,683,208 |
| Wheat | 400 | 400 | 0 | $175,560 |
| Forage | 31,300 | N/A | N/A | $1,091,250 |
| Livestock | | | | |
| Cattle Evacuated | | | 4,800 | $24,000 |
| Cattle Killed | | | 12 | $10,440 |
| **Total** | **95,466** | **52,166** | **12,000** | **$44,969,387** |

*Source: Guidry, 2011*

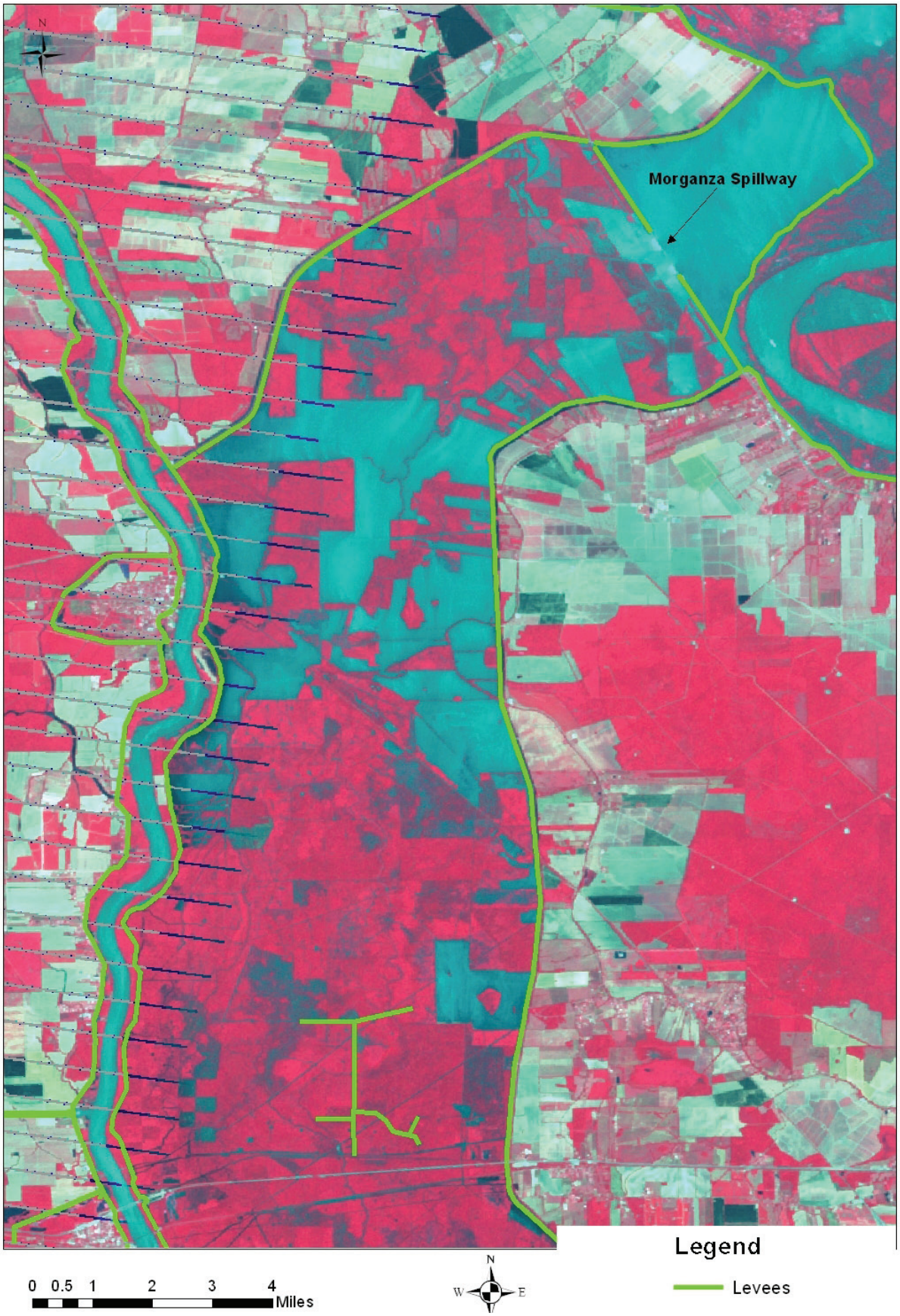


*Figure 15. Flooded fields within the Morganza Floodway on May 18, 2011 (the background satellite imagery is from the May 18 Landsat7).*

## Impact to Forestry

LDAF's Office of Forestry personnel indicated that it was not likely that there was any lasting damage to the forestry resource in the Atchafalaya Basin as a result of the 2011 flood.

## Impact to Wildlife

### *Louisiana Black Bear*

LDWF personnel indicated that the Morganza Floodway opening and associated inundation displaced Louisiana black bears, a federally listed threatened species, from the floodway. Bear sightings following the opening increased, mostly because levee spotters were reporting them.

Bears were seen swimming out of the floodway, and back into the floodway, on a regular basis. One lactating female was hit by a train on a railway trestle. LDWF personnel expected that there was some loss of bear cubs during the floodway opening, given the strong current and the obstructions they would have had to negotiate. One radio-collared female bear had one cub prior to the flood. That collared female never left the Morganza Floodway during the flood, and is believed to have lost her cub. If the cub, and the lactating female and her cub are assumed to have perished as the result of the flood, using the LDWF's civil restitution value for a black bear, the loss could be estimated at $30,000.

The USACE, per requirements of the federal Endangered Species Act, will prepare a biological assessment on the effects of the 2011 flood operations (including operation of the Old River Control Structure and the Morganza Floodway) on the Louisiana black bear and the endangered pallid sturgeon. That assessment will be used by the U.S. Fish and Wildlife Service (USFWS) in their preparation of a biological opinion in the effects of those flood operations on the Louisiana black bear and the pallid sturgeon. That opinion is expected to include an estimate of mortality for each of those species as a result of the 2011 flood operations. It is also anticipated the estimates will be available separately for the Atchafalaya Basin, as well as the area affected by the Bonnet Carre Spillway opening after the release of this report.

### *Whitetail Deer*

The LDWF conducted surveys to determine 2011 flood-related impacts to the deer herd in that portion of the Atchafalaya Basin extending north of I-10 to the Morganza Floodway spillway gates. Those surveys resulted in mortality estimates of up to 30 percent for the deer herd in that area. Those estimates led to LWDF reducing deer hunting opportunities in the Atchafalaya Basin for the 2011-2012 hunting season. Based upon the LDWF's criteria, the deer population within the Morganza Spillway can be estimated at approximately 5,400. Using the 30% mortality rate, it can be roughly estimated that up to 1,600 deer may have died as the result of the flooding. Using the current LDWF's civil restitution value for a deer, the economic loss could be estimated at up to $840,000.

### *Other wildlife*

It is expected that smaller mammals and ground nesting birds were significantly impacted by the flood (Figure 16). LDWF captured a small number of wild turkeys in the Morganza Floodway just prior to the 2011 opening of that spillway, and fitted them radio collars for tracking of their movement in response to that flooding. The utility of that tracking information in quantifying the 2011 flood impacts on that species is limited by the small sample size involved. Based on information reported by Atchafalaya National Wildlife Refuge (NWR) personnel wild turkey nesting in the inundated areas were severely impacted by the floodwater, no young turkeys were observed after the floodwater had receded.

LDWF personnel, who manage Louisiana's alligator populations and harvest, noted that any significant effects on alligator harvest in the Atchafalaya Basin as a result of the 2011 flood would be reflected in harvest levels specific to that area for the upcoming 2011 alligator hunting season. LDWF also indicated that they planned on looking at alligator egg collection records for the Atchafalaya Basin to help deter-

mine effects of the 2011 flood on future alligator population. In November 2011, the USACE issued a biological assessment report regarding the effect of the opening of the Morganza Spillway on the endangered pallid sturgeon (George and Killgore, 2011). The report concluded that the USACE "believes that the number of adult and juvenile sturgeon entrained was negligible to non-existent." The report, with concurrence from USFWS, states that the 2011 operation of the Morganza Spillway did not adversely impact the pallid sturgeon.

Bonnie Hedges, Bayou Pigeon

*Figure 16. Picture of a rabbit swimming in the floodwater on May 28, 2011.*

***Wildlife Management Areas and Refuges***

On May 16, 2011, the LDWF closed their two Wildlife Management Areas (WMAs) in the Atchafalaya Basin (Sherburne WMA and Attakapas Island WMA). On July 1, 2011, LDWF reopened all of Attakapas Island WMA. On that date, that portion of Sherburne WMA known as the "South Farm" was reopened to all terrain vehicle and walk-in traffic. The remainder of that WMA, including the shooting range, was closed until August 1, 2011.

Both Sherburne WMA, as well as the adjacent Atchafalaya NWR, had extensive flood damages to roads. LDWF estimated that approximately $93,200 would be needed to repair damages to North Oil Field Roads, Big and Little Alabama Roads, Happytown Road, Bayou Manuel Road, Headquarters and Campgrounds Roads, and parking areas on Sherburne WMA. On Atchafalaya NWR, the USFWS estimated that $94,500 would be needed to repair flood impacts to those portions of Big Alabama Road, Happytown Road, Landing Road, Bayou Manuel Road, Double Gate Road that are located on the Refuge, and to eight informational kiosks found there. The roads damaged on Sherburne WMA and Atchafalaya NWR provided access to tens of thousand of visitors to those public use areas, as well as to private landowners, oil and gas operations, and power lines. Oil and gas companies have performed approved repairs on some damaged roads there so they could access their facilities.

Information provided by the USACE indicated that funds were needed to repair flood damages to roads, informational kiosks, trails, water wells, ranger stations, levees, and culverts, as well as for debris removal, on Indian Bayou and Bayou Des Ourses WMAs. As of later 2011, the Sherburne headquarters and South Farm Complex had not been rehabilitated, and many of the undermined roads had not been recovered with new gravel.

## Impact to Fisheries

***Recreational***

Feedback from sport fishermen and agency personnel indicated reduced sport fishing effort and success in the Basin during the higher water periods of the 2011 flood. Fish kills attributed to low dissolved oxygen (DO) levels were reported by LDWF personnel in the Henderson Lake area and in the borrow canal that runs downstream from that area along the flood side of the West Atchafalaya Basin Protection Levee. A fish kill in Cow Island Lake was also reported. Following the peak of the flood, some sport fishermen did report success at some basin locations; reports of good sport fishing success increased as water levels continued to fall.

***Commercial***

**Wild Crawfish**

Communication with Atchafalaya Basin commercial crawfishermen indicated widespread areas of low-oxygen water, a lack of north-to-south flow, and only spotty areas of the basin with better water quality. Crawfishermen had to move their traps frequently to avoid areas of bad water quality. Some fishermen noted that higher crawfish prices helped to offset lower harvest; some fishermen were continuing to harvest in late July. USACE indicated that the fishing areas within WMAs were closed during the flood period.

Feedback from crawfishermen in the eastern portion of the Basin indicated that crawfish harvest there was lower than in the western portion of the Basin. Despite their hope that the flood would improve water quality and harvest, they reported that this crawfish season was not as good as last year. They also noted that most of the black water areas (areas low in dissolved oxygen) remained black even though the water was flowing through the swamps. Overall, based on a LSU AgCenter agent, the overall season appeared to be an average one, or maybe just slightly below average.

**Finfish**

On July 11, LDWF personnel reported that a fish kill was occurring in the Henderson Lake area. The kill involved hundreds of thousands of threadfin shad, thousands of freshwater drum (a commercial species), probably thousands of largemouth bass, and lesser numbers of finfish species such as crappie and bluegill. The cause of the fish kill was believed to be low DO levels. LDWF personnel (Walker, 2011, personal communication) associated the low dissolved oxygen levels and resulting fish kills in Henderson Lake, to the decay of a tremendous amount of vegetative material that was inundated during the flood. In addition, isolated pockets of poor water quality may also have resulted from water turnovers, which are the result of a sudden mixing of standing water. These turnovers are commonly caused by heavy rainfall events. LDWF personnel also mentioned reports of a fish kill in the nearby Cow Island Lake area and in a drain that flows into the Atchafalaya River near Butte La Rose. No fish kills were known to have been reported from other areas of the Atchafalaya Basin during this flood event.

## Impact of Environmental Resources

### *Wetland Ecology*

During the preparation of this report, limited information was available regarding impact to wetland ecology within the basin. It was noted that some of the black water observed in the basin had been flushed out; however, a large area of black water remained in the Upper Belle River area.

### *Sedimentation/Erosion*

Field observations indicate that a number of boat landings have flooded, and that some experienced substantial amounts of sedimentation requiring removal (Figure 17 a & b). Up to four feet of river silt accumulation was documented along the Atchafalaya River near Morgan City.

*Atchafalaya Basin Levee District*

*Figure 17 a. Erosion and sedimentation feature observed in the Basin after the 2011 flood event. Photograph of scoured potholes near the Morganza Spillway taken on 1/25/12.*

*Mike Walker, LDWF*

*Figure 17 b. Erosion and sedimentation feature observed in the Basin after the 2011 flood event. Photograph of sedimentation at Dorion's Landing taken on 6/14/11.*

Severe erosion including 30-foot potholes was documented by the Atchafalaya Basin Levee District downstream of the Morganza Flood Control Structure (Figure 17). Officials from St. Mary Parish reported that two huge sand deposits were formed by the flood, one in Atchafalaya Bay and the other in the Atchafalaya River near Morgan City.

### Impact from Invasive Plants

The most serious problem associated with aquatic invasive vegetation in the Basin during the 2011 flood was found in the upper end of Henderson Lake, in the Indian Bayou Wildlife Management Area. According to analysis done by the USACE's Engineer Research and Development Center (Yvonne Allen, 2011, written communication), satellite image showed that on June 19, 2011 there was approximately 1,170 acres of water hyacinth located mostly in the northern end of the lake. That estimate excluded areas usually covered with water hyacinth, based on 30 historical satellite images. Water hyacinth rafts also have been an impediment to recreational navigation, as well as access by commercial fishermen.

### Impact to Drinking Water Supply

A survey of the LDNR Office of Conservation's Strategic Online Natural Resources Information System (SONRIS) database indicated that approximately 960 registered water wells are found within the Atchafalaya Basin (Table 5). If the West Atchafalaya Basin Floodway, which did not flood during the 2011 Mississippi River flood event, is excluded (i.e. areas within St. Landry and Avoyelles Parishes), there are approximately 500 registered water wells (Table 5). These wells most likely represent (Figure 18) only a fraction of the existing wells within the basin, since the database only contains wells installed after the beginning of record keeping (November 1, 1985).

#### *Domestic Supply*

The LDNR's SONRIS data base indicates that, within the areas prone to inundation during the 2011 Mississippi River flood, 281 registered domestic water supply wells were at risk (Table 5). No specific information was available at the time this report was prepared as to the conditions of those wells.

**Table 5. Registered Water Wells in the Basin**

| Use | Atchafalaya Basin | Atchafalaya Basin Excluding the West Floodway |
|---|---|---|
| Domestic Supply | 527 | 281 |
| Industrial Use | 14 | 4 |
| Irrigation | 157 | 44 |
| Monitoring | 111 | 83 |
| Public Supply | 79 | 46 |
| Rig Supply | 58 | 38 |
| Recovery | 3 | 0 |
| Test Hole | 1 | 1 |
| Other | 9 | 5 |
| **Total** | **959** | **502** |

*Source: LDNR's SONRIS*

#### *Public Supply*

The LDNR's SONRIS database indicates that 46 registered public water supply wells were at risk within the areas prone to inundation during the 2011 Mississippi River flood (Table 5 and Figure 18). Most of the wells appear to be for campground or other small communal use. A limited amount of specific information was available at the time this report was prepared as to the conditions of those wells.

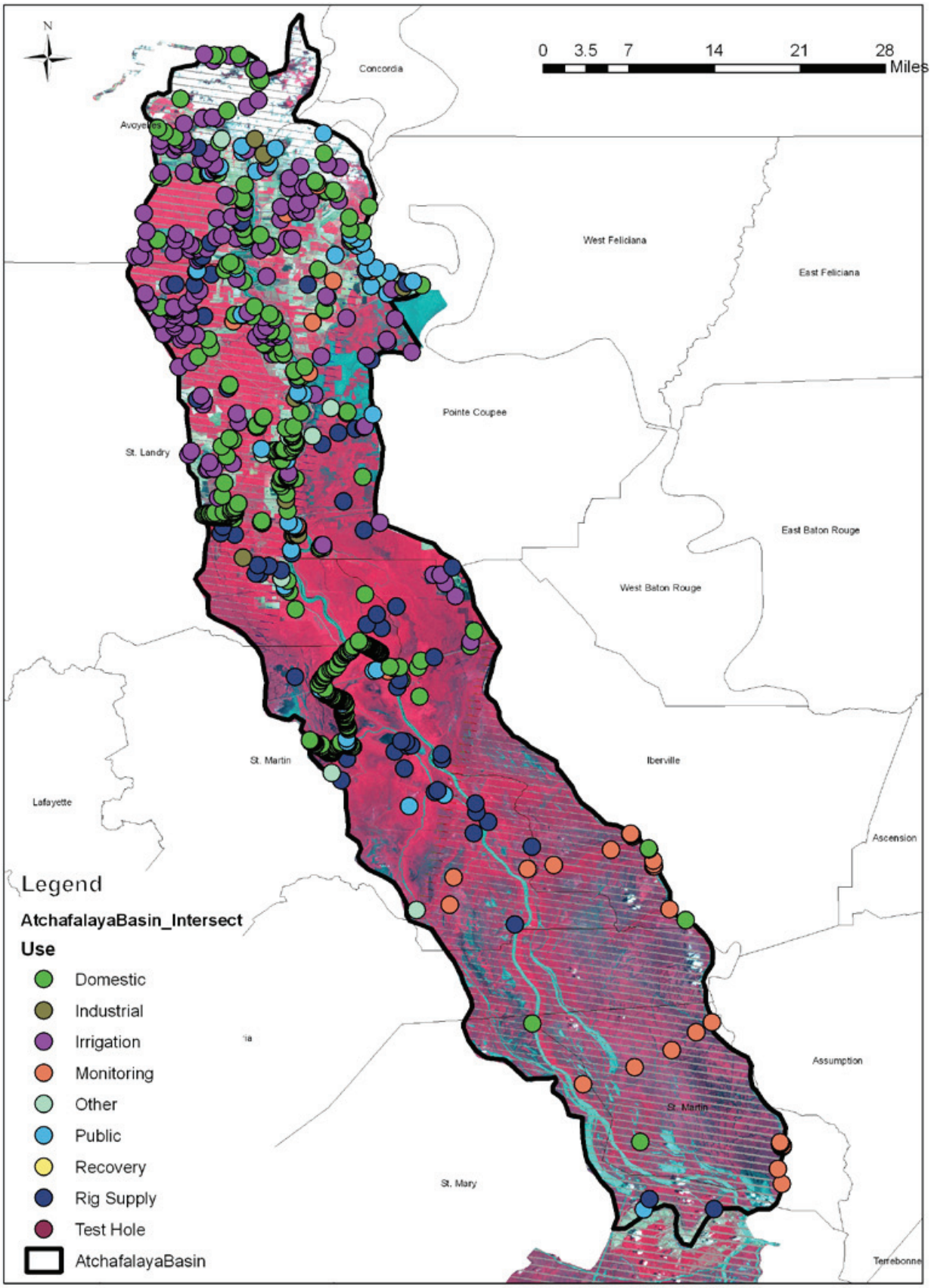


*Figure 18. Distribution of registered water wells in the Atchafalaya Basin (the background satellite imagery is from the May 18, 2011 Landsat7).*

The Louisiana Department of Health and Hospitals (LDHH) reported that a total of 13 public utilities were impacted in the Atchafalaya Basin, as follows: one in St. Mary Parish; four in Pointe Coupee Parish; and eight in St. Martin Parish (Table 6). By far the largest public water utility impacted by the Atchafalaya flood was the Morgan City Water System which has 6,300 customers, representing approximately 82% of all public utility customers impacted in the basin (Table 6). The distribution system for Morgan City was not impacted, but the treatment plant was flooded.

The four public water utilities in Pointe Coupee Parish include 471 connections (Table 6), the largest of which is the Pointe Coupee Water Works District 2 (Batchelor) which includes 320 of the 471 connections (Table 6). For this system, 75 service connections (mainly unoccupied camps) were inundated. Water pressure in this area was maintained. Old River Water #7 is the second largest system in Pointe Coupee Parish that was impacted. The water supply well and distribution system were submerged. This water supply serves mobile camps which cannot be occupied when the river rises to flood levels. The Old River Water #1 is the third largest system that was impacted in Pointe Coupee Parish (Table 6). The water supply well and distribution system were turned off, all customers were impacted. Lastly, the Sherburne WMA water system was completely inundated; both the well and connections were inundated during the interval of time when the gates of the Morganza Spillway were opened. This is a seasonal system serving hunters and fisherman, therefore, probably no customers were directly impacted (LDHH, 2011).

There are eight water systems in St. Martin Parish. Three of the water systems are located along the edges of the Atchafalaya Basin; the River Ridge Estates Water System, the TESI Atchafalaya Acres Water System and the McGees Landing Water System. These three systems have a total of 171 connections which faced a potential threat of inundation by floodwaters (LDHH, 2011). Two water systems are located within the basin, the Atchafalaya Basin Landing Water System and the Angelles Whiskey River Water System. These two systems have a total of ten connections and faced a potential threat of water system becoming inundated with floodwaters (LDHH, 2011). The State-owned Butte La Rose Rest Stop Water System was protected by a 28-foot high ring levee. It has two connections which faced a potential threat of the water system being inundated with floodwater. Near Butte La Rose, the Parish-owned Uncle Dick Davis RV Park Water System, which has 17 connections the water system, was scheduled to be shut down when road was closed due to flooding. The largest water system impacted in St. Martin Parish is the St Martin Water and Sewer Commission #1, which has 760 connections servicing primarily Stephensville (outside the basin's East Atchafalaya Basin Protection Levee). The pumping station on LA Hwy 70 was monitored during the flood for any inundation by floodwater (LDHH, 2011).

**Impact to Communities**

Beginning on May 10, 2011, the Governor of Louisiana reported that, under the scenario presented by the USACE (Morganza Spillway opened at 50% - Figure 8), it was expected that between 2,500 and 3,000 residents, and 2,000 structures within the Atchafalaya Basin would be impacted by the opening of the Morganza Spillway. Evacuation orders were declared in Iberville, St. Landry, St. Martin and St. Mary Parishes. Within the impacted area it was determined that 17 hospitals, 11 nursing homes and 86 businesses would be impacted. Louisiana Hwy 1 was closed over the Morganza Spillway, and lane closure and speed reduction were established for U.S. Hwy 190. La Hwy 3177 in Butte La Rose (St. Martin Parish), LA Hwy 975 (St. Martin and Pointe Coupee Parishes – closed approximately May 15 to June 1) and Bayou Pigeon Rd. (St. Mary Parish) were closed due to high water. The Butte La Rose visitor center made preparation to close, but remained open during the duration of the flood event.

**Table 6. Water Utilities Impacted by 2011 Floodwater in the Atchafalaya Basin**

| Parish | System name | Service connections | Generator available | Generator used | Current status | Current concern | Distribution flooded | Sources flooded |
|---|---|---|---|---|---|---|---|---|
| Pointe Coupee | Old River Water #7 | 100 | yes | no | inop | high | yes | yes |
| Pointe Coupee | Old River Water #1 | 50 | no | no | OK | high | partial (Shut off) | yes |
| Pointe Coupee | Pointe Coupee Water Works District #2-Batchelor | 320 | yes | no | OK | high | partial | no |
| Pointe Coupee | Sherburne WMA Water System | 1 | no | no | inop | high | yes | yes |
| St. Martin | Uncle Dick Davis RV Park Water System | 17 | no | no | OK | high | no | no |
| St. Martin | River Ridge Estates Water system | 24 | yes | no | OK | high | no | no |
| St. Martin | TESI Atchafalaya Acres water system | 143 | yes | no | OK | high | no | no |
| St. Martin | St. Martin Water Sewer Commission #1 | 760 | no | no | OK | high | no | no |
| St. Martin | Atchafalaya Basin Landing Water System | 9 | yes | no | OK | high | no | no |
| St. Martin | McGees Landing Water System | 3 | yes | no | OK | high | no | no |
| St. Martin | Angelles Whiskey River Water System | 1 | yes | no | OK | high | no | no |
| St. Martin | Butte Larose Rest Stop Water System | 2 | no | no | OK | high | no | no |
| St. Mary | Morgan City Water System | 6300 | yes | yes | OK | high | no | yes |

*Source: LDHH, 2011.*

## Impact to Structures and Infrastructure

The Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) website provides a listing of parishes Office of Homeland Security and Emergency Preparedness (OHSEP) contacts. Those individuals listed for the parishes with lands within the Atchafalaya Basin were contacted to provide information on infrastructure, camps and residences within the Basin that were impacted by the 2011 flood (Table 7 and Figure 19).

John Clark, Iberville Parish Government

*Figure 19. Flooded residences and camps within the Morganza Floodway on May 17, 2011.*

**Table 7. Inventory of Structures and Infrastructure in the Atchafalaya Basin**

| Number | Structure | Notes |
|---|---|---|
| 17 | Hospital | |
| 11 | Nursing homes | one closed and one evacuated |
| 673 | Residence | |
| >900 | Camps | |
| >1,300 mi | Pipelines | Excludes flow and gathering lines |
| 592 | producing wells | 168 shut-in during the flood |
| 252 | Lease, Unit or Well (LUW) | |
| 17 mi | Federal Interstate highway | US 10 |
| 34 mi | Federal highways | US 190, US 71, US 90 |
| 87 mi | State highways | |
| ~80 mi | Railroad tracks | |
| 1 | Visitor center | |
| 80 | Boat launches | |
| 1 | Petroleum refinery | |

*Sources: LDNR, GOHSEP and parishes OHSEP*

## Private Structures and Infrastructure

### *Iberia Parish*

Iberia Parish personnel noted that there appear to be no camps in the Iberia Parish portion of the Basin that were affected by the floodwaters (Table 8). They also reported that there were no Iberia Parish residences located in the Basin. There were no road closures, navigation closures, utility closures, or boat launch closures in the parish. In addition, there was no known damage to assets either public or private. There appeared to be no flood related sand deposits and bars, log jams or erosion within the parish. No incidents were reported relevant to public health and safety within the parish. Although there were no reported flood-related impacts within the parish, a number of precautionary measures were taken, such as prepositioning public works equipment and conducting levee surveillance (Prescott Marshall, 2011 written communication).

### *Iberville Parish*

Iberville Parish personnel estimated that about 198 camps and two (2) residences flooded in the Atchafalaya Basin portion of their parish. There are a total of 250 private and public structures within the basin levees that were flooded (Laurie Doiron, 2011, written communication). There were no road closures, navigation closures, utility closures, or boat launch closures in the parish. In addition, there were no reported flood-related damages to assets, either public or private. The OHSEP of Iberville Parish was not aware of any sand deposits and bars, log jams or erosion within the parish. There were sandbags were prepared but were not used. There were no incidents relevant to public health and safety within the parish (Laurie Doiron, 2011, written communication).

**Table 8. Number of Camps, Residences and Businesses Impacted by Floodwaters**

| Parish | Camps | Residences | Businesses | Other | Total |
|---|---|---|---|---|---|
| Iberia | 0 | 0 | 0 | 0 | 0 |
| Iberville | 198 | 2 | 50 | | 250 |
| Pointe Coupee | 22-28 | 0 | | | 22-28 |
| St. Landry | 26 | | 1 | | 27 |
| St. Martin | 250-300 | 40 | | | 290-340 |
| St. Mary | 187 | 10 | 35 | | 232 |
| **Total** | **683-791** | | **86** | | **821-877** |

### *Pointe Coupee Parish*

The Pointe Coupee Parish contact estimated that 20 to 25 camps located near Sherburne WMA (Big Alabama) area were flooded, and that 2 to 3 hunting camps within the Morganza Floodway north of U.S. Hwy 190 were flooded. The Atchafalaya Basin Levee District documented the formation of scour holes at the base of the Morganza Spillway apron (Figure 17). The parish did not issue an evacuation order for the Morganza Floodway, but indicated that the affected persons self-evacuated. Sheriffs and National Guardsmen went door to door to warn residents to move themselves, their belonging and their livestock ahead of the floodwaters (The Times-Picayune, May 14, 2011).

### *St. Landry Parish*

The St. Landry Parish contact received reports that a couple of camps just north of Melville sustained water damage, and 24 camps and/or residential homes located off of Spillway Road (Landing Lane, Water Front Rd., and Misty Creek Rd, in Port Barre) sustained water damage. The Atchafalaya campground was under water for approximately 20 days. It is located on the east side of the Atchafalaya River levee

off of LA Hwy 105 south of Krotz Springs on the unprotected side of the Atchafalaya River levee (Lisa Vidrine, 2011, written communication).

In Krotz Springs, a two-mile long emergency levee was constructed starting on the north end of the Union Pacific Railroad track and ending at LA Hwy 105 on its south end. The levee remained up until October 6, 2011, but parts were taken out to restore perimeter fencing. Wrap material, sand, dirt, sand bags, Hesko baskets, rib baskets, and plastic sheeting were utilized to build this levee (Lisa Vidrine, 2011, written communication).

The Bayou Darbonne boat launches closed, including the Levee Landing boat launch and the Public boat launch under U.S. Hwy 190 near Port Barre. The boat launch at the Grimmett Canal, located south of U.S. Hwy 190 off of Spillway Road near Port Barre, was closed due to rising water. The access to the launch was submerged and was deemed a safety hazard. Both of these closures started May 31, 2011, and ended on June 14, 2011. The boat launches on the Atchafalaya River were closed to the public on May 31, 2011 due to hazardous conditions on the river and were not reopened until June 14, 2011 (Lisa Vidrine, written communication, 2011).

***St. Martin Parish***

St. Martin Parish provided an inventory of the number of structures within the Atchafalaya Basin, which included 831 camps, 398 homes, 1 fire station, 3 public buildings, 3 churches, and 21 businesses. St. Martin Parish had on-site documentation of 40 structures that had flood damages, primarily in the Butte La Rose, Sherburne and Happy Town areas. The Parish is generally aware of unreported flooding that likely occurred in some of the camps in the St. Martin Parish portion of the Basin.

***St. Mary Parish***

The St. Mary Parish Sheriff's Office had reported that there were 328 camps in St. Mary Parish and that 187 of those camps were flooded during the 2011 flooding event. However, they did not have information regarding how many of those flooded camps were located within the Atchafalaya Basin. Thirty five businesses and ten homes were reported flooded (Duval Arthur, 2011, written communication). Six boat launches were closed between May 5 and May 30: Millet Point, Centerville Boat Ramp #1 and #2, Michel Boat Ramp, Russo Boat Ramp, and Wilson Boat Ramp. Berwick Lock was closed to navigation May 5 through May 30 and Bayou Pigeon Road (along the East Atchafalaya Basin Protection Levee) was closed throughout the flood. To the south, outside the Atchafalaya Basin Floodway System, LA Hwy 317 was closed near Burns Part May 14 to May 16, 2011, Bayou Chene was closed completely May 5 through September 3, 2011, and the Avoca Island Ferry was closed May 7 through May 30 (Duval Arthur, 2011, written communication).

Several temporary flood control structures were located throughout St. Mary Parish. Approximately 80,000 fifty-pound sand bags and 5,000 three thousand pound sand bags were used. Twelve miles of earthen levees and 10,000 feet of Hesco basket levees were constructed. On the south side of Morgan City, a barrier was constructed in Bayou Chene to prevent backwater flooding. This involved sinking a 500-foot barge across the bayou. Two 400-foot sheet piling/rip-rap bumpers were constructed to help hold the barge in place. A 1,000-foot long sheet pile structure was installed across the bayou. In an effort to protect Morgan City, Franklin, Berwick and Baldwin, extra Tiger Dams, Augua Dams and additional flood protection devices were put in place (Duval Arthur, 2011, written communication).

No log jams or erosion were reported within St Mary Parish. There were reports of two new large sand deposits occurring south of the Atchafalaya Basin, one in Atchafalaya Bay and the other in the Atchafalaya River in Morgan City area (Duval Arthur, 2011, written communication). St. Mary Parish reported damage to the boat launches listed above and to the Avoca Island Ferry ramp. The damage to the boat launches/ramps and other structure was estimated at $3,000,000.

### Parish-Owned Structures and Infrastructure

As indicated above, impact in excess of $3,000,000 resulted from the floodwaters to parish-owned structures, infrastructure and/or facilities within the Basin. Flood-related impacts occurred to parish-maintained boat launches, such as siltation of Belle River boat launch, parking area, restrooms and pavilion (St. Martin Parish), flooding of the facilities at Bayou Sorrell (Iberville Parish) and the six boat launches in St. Mary Parish discussed above.

### State-Owned Structures and Infrastructure

The Wildlife Division of the LDWF provided estimates indicating that repairs for 2011 flood damages to roads and parking areas on Sherburne Wildlife Management Area would cost approximately $93,200 (Table 9). The Atchafalaya Welcome Center near Butte La Rose was closed during the high water. An extension of the levee across the boat launch access road was constructed to protect communication assets and the welcome center.

**Table 9. LDWF Estimates of Infrastructure Repair in the Basin.**

| Description | WMA | Estimated Cost | Parish |
|---|---|---|---|
| 2,250 tons Limestone for North Oil Field, Big & Little Alabama Rds., Happytown Rd., Bayou Manuel Rd., Parking areas, Headquarters and Campground Roads | Sherburne WMA | $81,000 | Pointe Coupee |
| 330 yds. Pit Run for North Oil Field road washouts | Sherburne WMA | $6,600 | Pointe Coupee |
| 100 ton Rip Rap to fill washouts in North Oil Field Roads | Sherburne WMA | $5,600 | Pointe Coupee |

*Source: Kenneth Litzenberger, 2011 personal communication.*

LDOTD response activities prior and during the flood included but are not limited to: building levees; repairing roads and shoulders; controlling traffic; monitoring water levels; inspecting flooded areas; closing roads; clearing debris from drainage structures; purchasing and hauling sand and sand bags; hauling recycled asphalt; cold aggregates and other materials used for flood control measures; purchasing, hauling and installing Hesco Baskets, Tiger Dams and RIBS; and constructing and repairing movable bridges. The total estimated DOTD cost for response and damages in the Atchafalaya Basin is $3,402,945 (Table 10).

**Table 10. LDOTD Estimated Response and Damage Expenses in the Basin.**

| Category of Expense | Estimated Cost |
|---|---|
| Labor, materials and equipment | $1,630,748 |
| Miscellaneous | $2,951 |
| Purchased Materials and Supplies | $935,884 |
| Rented Equipment | $111,915 |
| Reported Damages | |
| LA 10 Pointe Coupee Parish, repair | $256,076 |
| LA 975 Pointe Coupee Parish, repair | $449,259 |
| Travel | $16,112 |
| **Total** | $3,402,945 |

*Source: LDOTD, written communication, 2011.*

### Federally Owned Structures and Infrastructure

Needed flood related repairs identified for the USACE's Indian Bayou WMA facilities included replacement of information kiosks and road rock; and repairs of trails, water wells, levees, and ranger stations at north and south farm; and removal of culverts and debris (Michael Saucier, 2011, personal communication).

### Navigation

#### *Recreational*

Recreational navigation (primarily by sport fishermen and other recreational boaters) was impeded by rafts of water hyacinth during and following the 2011 flood. This problem was especially severe in the upper Henderson Lake area of the Basin, where solid blockage of access from Bayou Fusilier to the lake was documented with satellite imagery. Numerous Basin boat launches were made inaccessible due to flood-related closing caused by high water, silt deposits accumulation and water hyacinth rafts.
Silt accumulation and hyacinth rafts were also an impediment to recreational navigation as well as access by commercial fishermen (Figure 21 and Table 11). Log jams were also been a concern as potential navigation hazards for recreational fishermen and other boaters. The LDWF closed a 4–mile section of waterway between Henderson Lake and Butte La Rose in St. Martin Parish between May 26 and June 13, 2011. The closure was caused by clearance issues associated with overhead power lines (Figure 22). In addition, some closure, such as that of Doiron, Belle River and Adam's landing facilities were extended beyond the duration of the flood due to sediment accumulation (Figures 17b and 21).

#### *Commercial*

Commercial navigation within the basin was impacted by the following closures:

(1) Old River locks closed to barge traffic from May 12 to June 1, 2011

(2) Atchafalaya River closed to traffic (mile marker 0-117) from May 19 to June 14, 2011

(3) Bayou Sorrell Lock was closed to navigation from May 23 to June 4, 2011

(4) Berwick Lock was closed to navigation from May 5 to May 30, 2011

## Industry

During the flood period navigation was restricted and locks were closed. This adversely affected businesses by limiting traffic allowances over levees, and restricting barge and river traffic, which in turn affected deliveries of product and raw materials to and from refineries and terminals. Similarly, high water affected some docks at terminals and refineries which became inaccessible to make or to receive deliveries. This caused reductions in production due to the lack of storage capacity and inaccessibility of some terminals. Similarly, reductions in production rates of the affected facilities were caused by limited access to supplies, transportation and to necessary raw materials. In addition, some refineries and other facilities faced pipeline shut-ins, reductions in production at the refinery level, and retail facility and road closures. The Alon Refinery in Krotz Springs was forced to operate at below capacity and/or to shut down for a number of days. Railway speed through the Morganza Spillway was reduced during the flood period to minimize injuries and death to Louisiana black bears.

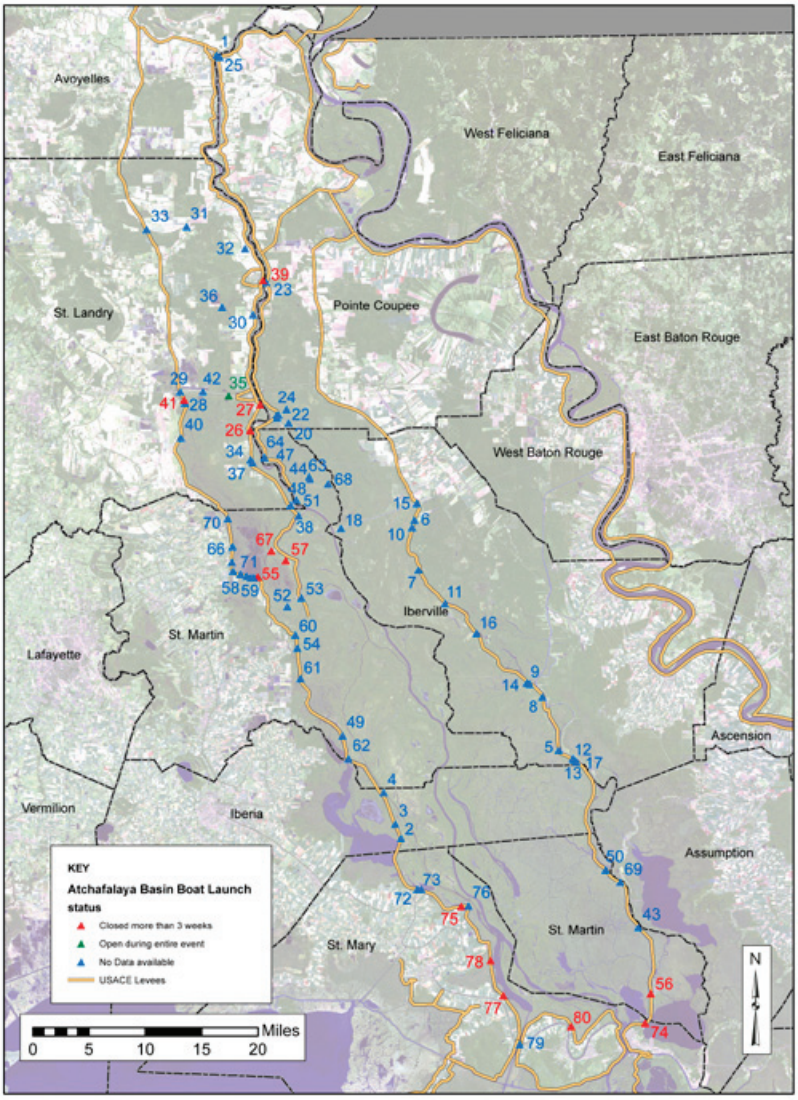


*Figure 20. Impact of the 2011 Mississippi River flood on Atchafalaya Basin boat launches.*

## Table 11. Summary of LGS Boat Launch Survey

| # | Name | Parish | Latitude | Longitude | Owner | Closure duration (wks) | Revenue loss | Flood Damage |
|---|---|---|---|---|---|---|---|---|
| 1 | Simmesport | Avoyelle | 30.9809 | -91.8035 | USACE | na | na | na |
| 2 | Little Lake Long Boat Launch | Iberia | 29.96842 | -91.5421 | | na | na | na |
| 3 | Ruiez Boat Launch | Iberia | 29.98672 | -91.5504 | State | na | na | na |
| 4 | Sandy Cove Boat Launch | Iberia | 30.02738 | -91.5673 | | na | na | na |
| 5 | Allemand's Landing | Iberville | 30.07905 | -91.3067 | Parish | na | na | na |
| 6 | Bayou Maringouin Boat Launch #1 | Iberville | 30.37868 | -91.5158 | | na | na | na |
| 7 | Bayou Maringouin Boat Launch #2 | Iberville | 30.31388 | -91.5112 | Wilbert A Sons LLC | na | na | na |
| 8 | Bayou Sorrel Boat Landing | Iberville | 30.14828 | -91.3293 | Parish | na | na | na |
| 9 | Bayou Sorrel Boat Launch | Iberville | 30.16652 | -91.3527 | | na | na | na |
| 10 | King's Ditch Boat Launch | Iberville | 30.36878 | -91.5197 | | na | na | na |
| 11 | New 1 | Iberville | 30.27048 | -91.4721 | Dow Chemical | na | na | na |
| 12 | New 15 | Iberville | 30.06663 | -91.2842 | Private land owner | na | na | na |
| 13 | New 16 | Iberville | 30.06818 | -91.2865 | USACE | na | na | na |
| 14 | New 2 | Iberville | 30.1648 | -91.3485 | | na | na | na |
| 15 | Ramah Boat Landing | Iberville | 30.39992 | -91.5124 | Parish | na | na | na |
| 16 | Upper Grand River Boat Landing | Iberville | 30.23142 | -91.4265 | Parish | na | na | na |
| 17 | Vaughn's Boat Launch | Iberville | 30.06402 | -91.281 | | na | na | na |
| 18 | Whiskey Bay Boat Launch | Iberville | 30.36867 | -91.626 | | na | na | na |
| 19 | Alabama Bayou Boat Launch #1 | Pointe Coupee | 30.51582 | -91.7186 | USFWS | na | na | na |
| 20 | Alabama Bayou Boat Launch #2 | Pointe Coupee | 30.50562 | -91.7019 | Adams Campground | na | na | na |
| 21 | Big Alabama Boat Launch | Pointe Coupee | 30.51582 | -91.7164 | LDWF | na | na | na |
| 22 | Little Alabama Bayou Boat Launch | Pointe Coupee | 30.51233 | -91.7189 | LDWF | na | na | na |
| 23 | Melville | Pointe Coupee | 30.68729 | -91.7323 | Parish | na | na | na |
| 24 | Nature Trail Rd. Boat Launch | Pointe Coupee | 30.52317 | -91.7047 | USFWS | na | na | na |
| 25 | Simmesport | Pointe Coupee | 30.97835 | -91.7978 | Parish | na | na | na |
| 26 | Atchafalaya Basin Campground | St. Landry | 30.49633 | -91.7594 | Private land owner | 4.5 | $495 | none |
| 27 | Atchafalaya River Boat Landing | St. Landry | 30.52958 | -91.744 | City | 4.5 | na | na |
| 28 | Bayou Courtableau Boat Landing | St. Landry | 30.5328 | -91.8556 | USACE | na | na | na |
| 29 | Bayou Courtableau Boat Ramp #1 | St. Landry | 30.54743 | -91.8626 | USACE | na | na | na |
| 30 | Bayou Petite Prairie | St. Landry | 30.64572 | -91.753 | | na | na | na |

| # | Name | Parish | Latitude | Longitude | Owner | Closure duration (wks) | Revenue loss | Flood Damage |
|---|---|---|---|---|---|---|---|---|
| 31 | Bayou Rouge #1 | St. Landry | 30.75989 | -91.8507 | | na | na | na |
| 32 | Bayou Rouge #2 | St. Landry | 30.73115 | -91.7636 | | na | na | na |
| 33 | Bayou Rouge #3 | St. Landry | 30.75715 | -91.9103 | | na | na | na |
| 34 | Dixie Boat Ramp | St. Landry | 30.45493 | -91.7563 | | na | na | na |
| 35 | Half Moon Bayou Boat Launch | St. Landry | 30.54117 | -91.7904 | | 0 | $0 | $0 |
| 36 | Half Moon Lake | St. Landry | 30.65561 | -91.7984 | | na | na | na |
| 37 | Halphen Ln. Boat Launch | St. Landry | 30.45868 | -91.759 | | na | na | na |
| 38 | Indian Bayou WMA Boat Launch | St. Landry | 30.39937 | -91.7003 | USACE | na | na | na |
| 39 | Melville Ferry | St. Landry | 30.68997 | -91.7374 | Parish | 4.5 | na | na |
| 40 | New 7 | St. Landry | 30.48772 | -91.8621 | Tomlinson Realty Co. | na | na | na |
| 41 | Rosie's Landing | St. Landry | 30.53675 | -91.8567 | Private land owner | 8 | $800 | $0 |
| 42 | Terrytown Campground | St. Landry | 30.5472 | -91.8286 | | na | na | na |
| 43 | Adams Landing - Spillway | St. Martin | 29.84885 | -91.1924 | Private land owner | na | na | na |
| 44 | Alabama Bayou Boat Launch #3 | St. Martin | 30.43273 | -91.6709 | USFWS | na | na | na |
| 45 | Angelle's Whiskey River Landing | St. Martin | 30.30612 | -91.7606 | Private land owner | na | na | na |
| 46 | Atchafalaya Basin Landing & Marina | St. Martin | 30.30867 | -91.7669 | Private land owner | na | na | na |
| 47 | Atchafalaya River Boat Ramp #1 | St. Martin | 30.46092 | -91.7385 | USACE | na | na | na |
| 48 | Atchafalaya River Boat Ramp #2 | St. Martin | 30.40638 | -91.692 | USACE | na | na | na |
| 49 | Bayou Benoit Boat Launch | St. Martin | 30.10165 | -91.6272 | State | na | na | na |
| 50 | Belle River Landing | St. Martin | 29.92388 | -91.2402 | Atchafalaya Basin Levee District | na | na | na |
| 51 | Breaux's Boat Launch | St. Martin | 30.38595 | -91.6886 | St. Martin Land Co. | na | na | na |
| 52 | Butte La Rose Boat Launch | St. Martin | 30.2688 | -91.7069 | Parish | na | na | na |
| 53 | Captain Hedges' Landing | St. Martin | 30.28027 | -91.686 | | na | na | na |
| 54 | Catahoula Landing | St. Martin | 30.2151 | -91.6924 | | na | na | na |
| 55 | Cypress Cove Landing | St. Martin | 30.30732 | -91.7503 | Private land owner | 4 | $455,000 | $0 |
| 56 | Doiron's Boat Landing #1 | St. Martin | 29.76335 | -91.176 | Private land owner | 8 | $66,000 | $61,420 |
| 57 | Frenchman's Wilderness Campground | St. Martin | 30.32857 | -91.7084 | Private land owner | 5 | na | $0 |
| 58 | Kern's Landing | St. Martin | 30.31515 | -91.787 | Private land owner | na | na | na |
| 59 | McGee's Landing | St. Martin | 30.30645 | -91.7563 | Private land owner | na | na | na |
| 60 | New 10 | St. Martin | 30.232 | -91.6951 | Private land owner | na | na | na |
| 61 | New 11 | St. Martin | 30.17567 | -91.6886 | Private land owner | na | na | na |

| # | Name | Parish | Latitude | Longitude | Owner | Closure duration (wks) | Revenue loss | Flood Damage |
|---|---|---|---|---|---|---|---|---|
| 62 | New 12 | St. Martin | 30.07148 | -91.6187 | Private land owner | na | na | na |
| 63 | New 4 | St. Martin | 30.43638 | -91.672 | USFWS | na | na | na |
| 64 | New 5 | St. Martin | 30.46187 | -91.7385 | USACE | na | na | na |
| 65 | New 8 | St. Martin | 30.34685 | -91.7867 | Private land owner | na | na | na |
| 66 | New 9 | St. Martin | 30.32723 | -91.7886 | USACE | na | na | na |
| 67 | Pelba Landing | St. Martin | 30.34073 | -91.729 | State | >3 | na | na |
| 68 | Section 120 Road Boat Launch | St. Martin | 30.42617 | -91.644 | USFWS | na | na | na |
| 69 | UNOCAL Old Belle River Landing | St. Martin | 29.90743 | -91.2185 | Private land owner | na | na | na |
| 70 | West Dixie Boat Launch | St. Martin | 30.38337 | -91.7933 | USACE | na | na | na |
| 71 | Wiltz Boat Landing | St. Martin | 30.31107 | -91.7755 | St. Martin Land Co. | na | na | na |
| 72 | Charenton Floodgate Boat Launch | St. Mary | 29.90208 | -91.519 | USACE | na | na | na |
| 73 | Charenton Beach Boat Launch | St. Mary | 29.90185 | -91.5133 | Vigueries Estate | na | na | na |
| 74 | Joe C. Russo Memorial Boat Landing | St. Mary | 29.72498 | -91.1849 | Parish | 3 | na | $50 |
| 75 | Millet Point Boat Launch | St. Mary | 29.87932 | -91.4543 | Parish | 3 | na | minor |
| 76 | New 14 | St. Mary | 29.88003 | -91.4438 | USACE | na | na | na |
| 77 | Verdunville Boat Landing #1 | St. Mary | 29.76377 | -91.394 | Parish | 3 | na | minor |
| 78 | Verdunville Boat Landing #3 | St. Mary | 29.80953 | -91.4122 | Parish | 3 | na | minor |
| 79 | Wax Lake Landing | St. Mary | 29.70053 | -91.3711 | Private land owner | na | na | na |
| 80 | Wilson's Landing Boat Launch | St. Mary | 29.72247 | -91.2943 | Parish | 3 | n/a | minor |

*Note: All launches with valid contact information were contacted.*
***na** indicates that no information was available or no response to inquiry.*
*Not all the launch listed were operational prior to the flood event.*

*Bonnie Hedges, Bayou Pigeon and Mike Walker, LDWF*

*Bonnie Hedges, Bayou Pigeon and Mike Walker, LDWF*

*Figure 21a. Belle River boat launch affected by flooding and sedimentation on 5/28/11 and 6/15/11.*

*Mike Walker, LDWF*

*Mike Walker, LDWF*

*Figure 21b. Adams' Landing boat launch affected by flooding and sedimentation 5/26/11 and 6/16/11.*

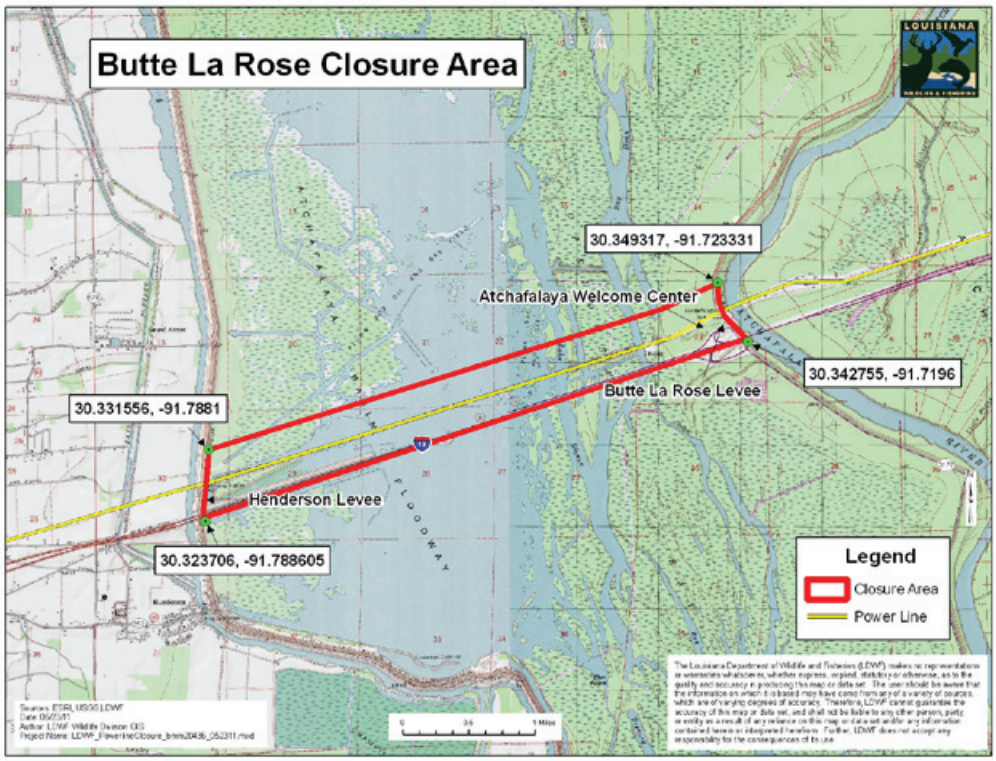


*Figure 22. Closure by LDWF due to low overhead power lines.*

## Oil and Gas Production

The loss of shut-in oil and gas production occurred quickly after the start of the flood. Two days after the start of the flood (May 16, 2011) the shut-in impact was already estimated at 165 wells resulting in a loss of 3,318 barrels/day (bbls/day) of oil production, and 23.3 thousand cubic feet/day (MCF/day) of natural gas production (Table 12). A peak shut-in of 169 wells occurred between May 18 and May 19, 2011 and later between May 31 and June 1, 2011. The peak reduction of oil production was 3,823 bbls/day, which occurred between May 31 and June 2, 2011. The peak reduction of natural gas production was 31.8 MCF/day between May 31 and June 1, 2011. After June 2, 2011, the number of wells shut-in, and the reduction in oil and gas production declined to its lowest level, with the last report issued showing 88 shut-in wells, oil production at 1,787 bbls/day and natural gas production at 17.4 MCF/day on July 27, 2011. Figure 23 shows the monthly field production of oil and natural gas from the Atchafalaya Basin. The plot shows that total oil production in the Basin was reduced by 30% during the flood and recovered by August 2011. Total natural gas production was reduced by over half and had not recovered to pre-flood levels by October 2011. Based on the basin production reduction and using the monthly commodity prices the drop in oil production can be estimated at 25,437 barrels or $2,448,072, and the drop in natural gas production at 145,122 MCF or $612,071.

During the opening of the Morganza Spillway, flooding apparently caused two relatively small releases of oil. A storage tank collapsed near Catahoula resulting in a release of ten barrels of oil. Near Bayou Postillion, Hilcorp reported a release of two barrels of oil (LDEQ, 2011).

**Table 12. Reported Shut-in Wells in the Basin due to Mississippi River Flood of 2011.**

| Date | Number of Producing wells | Number of Shut-in wells | Shut-in production of | |
|---|---|---|---|---|
| | | | Petroleum (bbl/day) | Natural gas (MCF/day) |
| 16-May-11 | 592 | 165 | 3696 | 31.1 |
| 16-May-11 | 592 | 165 | 3318 | 23.3 |
| 16-May-11 | 592 | 165 | 3318 | 23.3 |
| 17-May-11 | 592 | 165 | 3696 | 31.1 |
| 18-May-11 | 592 | 169 | 3778 | 31.6 |
| 18-May-11 | 592 | 169 | 3778 | 31.6 |
| 19-May-11 | 592 | 169 | 3778 | 31.5 |
| 20-May-11 | 592 | 167 | 3785 | 31.5 |
| 21-May-11 | 592 | 167 | 3785 | 31.5 |
| 22-May-11 | 592 | 167 | 3785 | 31.5 |
| 23-May-11 | 592 | 167 | 3785 | 31.5 |
| 24-May-11 | 592 | 167 | 3785 | 31.5 |
| 25-May-11 | 592 | 167 | 3785 | 31.5 |
| 26-May-11 | 592 | 167 | 3785 | 31.5 |
| 27-May-11 | 592 | 167 | 3785 | 31.5 |
| 28-May-11 | 592 | 167 | 3785 | 31.5 |
| 29-May-11 | 592 | 167 | 3785 | 31.5 |
| 31-May-11 | 592 | 169 | 3823 | 31.8 |
| 1-Jun-11 | 592 | 169 | 3823 | 31.8 |
| 2-Jun-11 | 592 | 168 | 3823 | 31.7 |
| 3-Jun-11 | 592 | 168 | 3797 | 31.7 |
| 5-Jun-11 | 592 | 168 | 3797 | 31.7 |
| 6-Jun-11 | 592 | 167 | 3758 | 31.7 |
| 7-Jun-11 | 592 | 162 | 3721 | 31.5 |
| 7-Jun-11 | 592 | 167 | 3758 | 31.7 |
| 8-Jun-11 | 592 | 161 | 3707 | 31.4 |
| 9-Jun-11 | 592 | 161 | 3707 | 31.4 |
| 15-Jun-11 | 592 | 154 | 3417 | 31.1 |
| 20-Jun-11 | 592 | 147 | 3192 | 30.7 |
| 21-Jun-11 | 592 | 144 | 3093 | 30.6 |
| 22-Jun-11 | 592 | 132 | 2667 | 29.8 |
| 27-Jun-11 | 592 | 130 | 2596 | 29.2 |
| 7-Jul-11 | 592 | 102 | 2308 | 22.5 |
| 12-Jul-11 | 592 | 93 | 2004 | 17.9 |
| 19-Jul-11 | 592 | 90 | 1993 | 17.6 |
| 27-Jul-11 | 592 | 88 | 1787 | 17.4 |

*Source: LDNR (report were only completed between May 16 and July 27, 2011)*

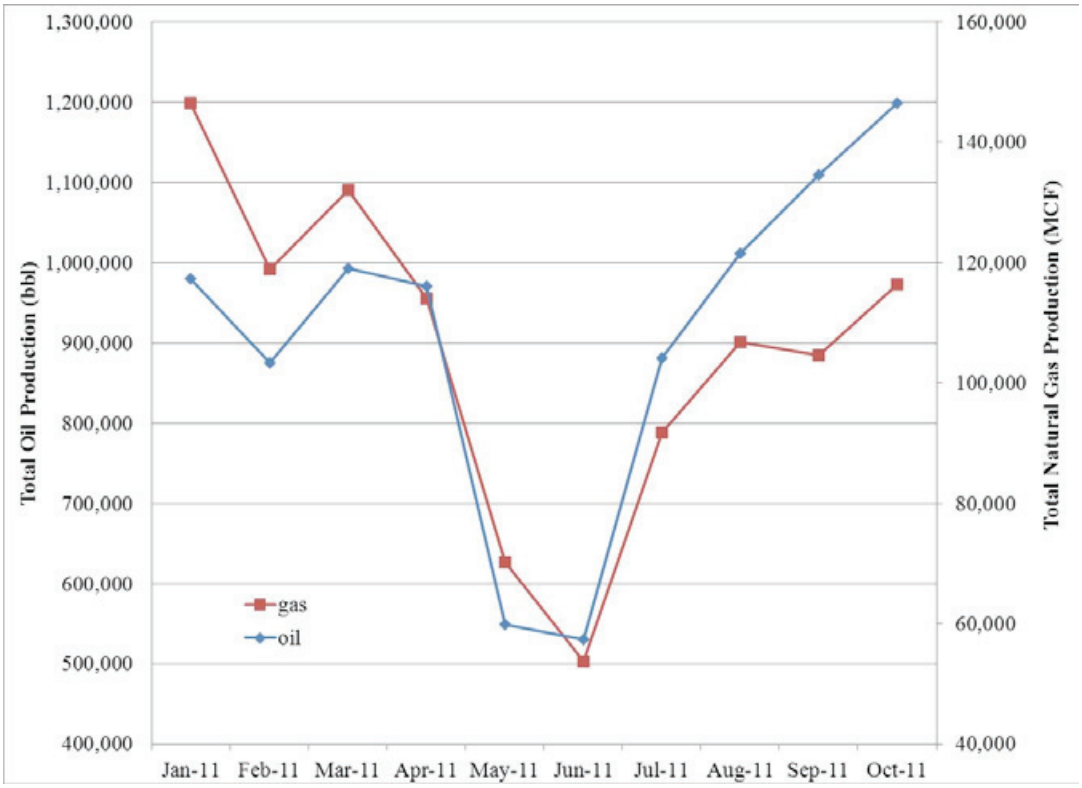


*Figure 23. Observed decreased oil and gas production from the Atchafalaya Basin in 2011.*

**Tourism and Recreation**

The 2011 flood resulted in significant adverse effects on tourism and recreational opportunities in the Atchafalaya Basin. Flood-related closures of WMAs, Atchafalaya NWR, boat launches, and reduced fishing opportunities constituted a major interruption of access to sites offering Basin-based recreational and tourism activities. The flood-related road damages and closures of the WMAs and NWR also prevented the use of boat launches within those areas. This reduced use further impacted recreational and tourism opportunities. Similarly, due to the duration of the flooding and based on deer mortality, the Louisiana Wildlife and Fisheries Commission (LWFC) revised its deer hunting season for the Sherburne and Attakapas Island WMAs. Based on the result of the fall hunting season, the USACE reported that for the Indian Bayou WMA, there did not appear to have been a shortage of deer and that for Bayou des Ourses WMA the decreased harvest may have been more the result of the shortened season than flooding (Michael Saucier and Brian Osberghaus, 2011, personal communications).

Visitor use of the Indian Bayou and Bayou des Ourses WMAs during the month of May and June represent approximately 7% and 5%, and 5% and 4%, of the total estimated yearly attendance, respectively. Based on the 2010 Value to the Nation Fast Facts Watershed Report for the Louisiana coastal watershed prepared by the USACE, this would represent and economic loss that can be estimated at $384,000 (Table 13).

**Table 13. Estimated Economic Loss from the Closure of the WMAs during the flood**

| Time Period | Indian Bayou | | Bayou des Ourses | | Economic Loss |
|---|---|---|---|---|---|
| | # person | % of yearly | # person | % of yearly | |
| May | 7,600 | 12% | 1,475 | 5% | $219,000 |
| June | 5,700 | 9% | 1,125 | 4% | $165,000 |
| **Total** | 13,300 | 21% | 2,600 | 8% | $384,000 |

*Source: USACE (http://www.corpsresults.us/recreation/fastfacts/lake.cfml?lakeID=801)*

## Impact to Public Health and Safety

### Pre-Inundation

As indicated in Section 3.8 of this report, evacuation orders (Table 14) were declared in Iberville, St. Landry, St. Martin and St. Mary Parishes (Figures 25-31). Iberville and St. Mary Parishes declared a voluntary evacuation of the Basin camps. Pointe Coupee Parish issued first a voluntary evacuation followed by a mandatory evacuation order for the areas south of U.S. Hwy 190 and Basin camps in the Old River area (Table 14). Within the Morganza Floodway, Pointe Coupee Parish recommended self-evacuation. St. Landry Parish issues voluntary and mandatory evacuation orders for the cities of Melville and Krotz Springs, both inside and outside the ring levee, as well as Three Mile Lake, North Wilderness Road and areas south of U.S. Hwy 190. St. Landry's evacuations began on May 9 and lasted until May 31, 2011. St. Martin Parish issued voluntary and mandatory evacuation orders for Butte La Rose, Happytown, Sherburne and Basin camps. St. Martin Parish's evacuations lasted from May 16 until June 10, 2011. Avoyelles Parish declared a state of emergency on May 4, 2011 but did not issue evacuation orders.

### During Inundation

During the inundation period, it is suspected that wildlife was relocated to higher ground. LDWF issued a news release requesting that people be mindful of displaced wildlife and avoid areas where wildlife took refuge, as well as to avoid roadways near flooded areas. Species of concern were the Louisiana black bear, alligators, snakes, deer and feral hogs.

During the high water period, although most of the boat launches were not usable, it remained possible in some location to launch boats directly from the levee (Figure 21). On the north side of U.S. Hwy10 the LDWF closed part of Henderson Lake due to the low clearance (<7 feet) below a high voltage overhead power line which provided electricity to the Atchafalaya Welcome Center and residences north of Butte La Rose (Figure 22). The area was closed between May 15 and June 13, 2011. Similarly, the temporary closure of several roads and highways (e.g. LA Hwy 975 and LA Hwy 3177) caused much confusion in St. Martin Parish.

**Table 14. Evacuation Orders Declared within the Atchafalaya Basin**

| Parish | Location | Evacuation | Number | Start | End |
|---|---|---|---|---|---|
| Iberville | Basin | Voluntary | 5 | | |
| Pointe Coupee | Morganza Floodway | Self | 70 | | |
| Pointe Coupee | South HWY 190 | Voluntary | 15-18 | 5/11/2011 | |
| Pointe Coupee | South HWY 190 | Mandatory | | | 5/24/2011 |
| Pointe Coupee | South HWY 190 | Voluntary | | 5/24/2011 | |
| Pointe Coupee | Big Alabama campsites | Voluntary | 200 | 5/11/2011 | |
| Pointe Coupee | Old River campsites | Voluntary | 6 | 5/18/2011 | |
| St. Landry | Livestock on/near the levees | Mandatory | | 5/9/2011 | 5/15/2011 |
| St. Landry | Melville | Voluntary | | 5/9/2011 | 5/31/2011 |
| St. Landry | Melville (outside levee) | Voluntary | | 5/9/2011 | 5/15/2011 |
| St. Landry | Melville (outside levee) | Mandatory | | 5/15/2011 | 5/23/2011 |
| St. Landry | Melville (outside levee) | Voluntary | | 5/23/2011 | 5/31/2011 |
| St Landry | Krotz Springs | Voluntary | | 5/9/2011 | 5/31/2011 |
| St Landry | Krotz Spring (outside levee) | Voluntary | 1682 | 5/9/2011 | 5/15/2011 |
| St Landry | Krotz Spring (outside levee) | Mandatory | | 5/15/2011 | 5/23/2011 |
| St Landry | Krotz Spring (outside levee) | Voluntary | | 5/23/2011 | 5/31/2011 |
| St Landry | Three Mile Lake area | Voluntary | 673 | 5/9/2011 | 5/15/2011 |
| St Landry | Three Mile Lake area | Mandatory | | 5/15/2011 | 5/23/2011 |
| St Landry | Three Mile Lake area | Voluntary | | 5/23/2011 | 5/31/2011 |
| St Landry | North Wilderness Road | Voluntary | | 5/9/2011 | 5/15/2011 |
| St Landry | North Wilderness Road | Mandatory | | 5/15/2011 | 5/23/2011 |
| St Landry | North Wilderness Road | Voluntary | | 5/23/2011 | 5/31/2011 |
| St Landry | Area south of 190 | Voluntary | | 5/9/2011 | 5/15/2011 |
| St Landry | Area south of 190 | Mandatory | | 5/15/2011 | 5/23/2011 |
| St Landry | Area south of 190 | Voluntary | | 5/23/2011 | 5/31/2011 |
| St. Martin | Butte La Rose | Voluntary | 728 | 5/16/2011 | 5/21/2011 |
| St. Martin | Butte La Rose | Mandatory | 728 | 5/21/2011 | 5/24/2011 |
| St. Martin | Butte La Rose | Voluntary | 728 | 5/24/2011 | 6/10/2011 |
| St. Martin | Basin camps | Voluntary | 30 | | |
| St. Martin | Happy Town | Voluntary | 121 | 5/16/2011 | 5/21/2011 |
| St. Martin | Happy Town | Mandatory | 121 | 5/21/2011 | 5/24/2011 |
| St. Martin | Happy Town | Voluntary | 121 | 5/24/2011 | 6/10/2011 |
| St. Martin | Sherburne area | Voluntary | 82 | 5/16/2011 | 5/21/2011 |
| St. Martin | Sherburne area | Mandatory | 82 | 5/21/2011 | 5/24/2011 |
| St. Martin | Sherburne area | Voluntary | 82 | 5/24/2011 | 6/10/2011 |
| St. Mary | Basin camps | Voluntary | 148 | | |

*Sources: GOHSEP and parishes OHSEP*

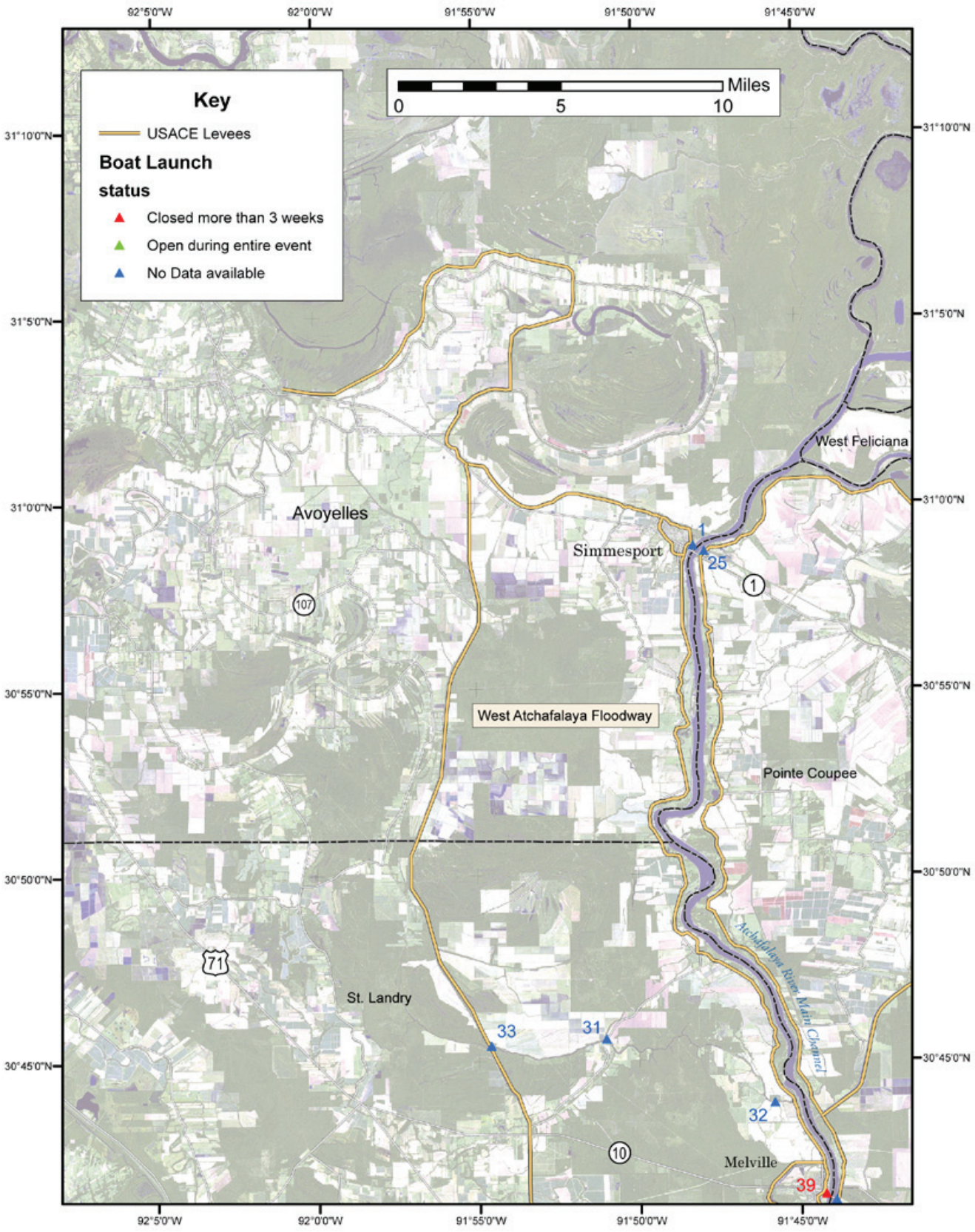


*Figure 24. Areas of Avoyelles Parish exhibiting public health and safety issues*

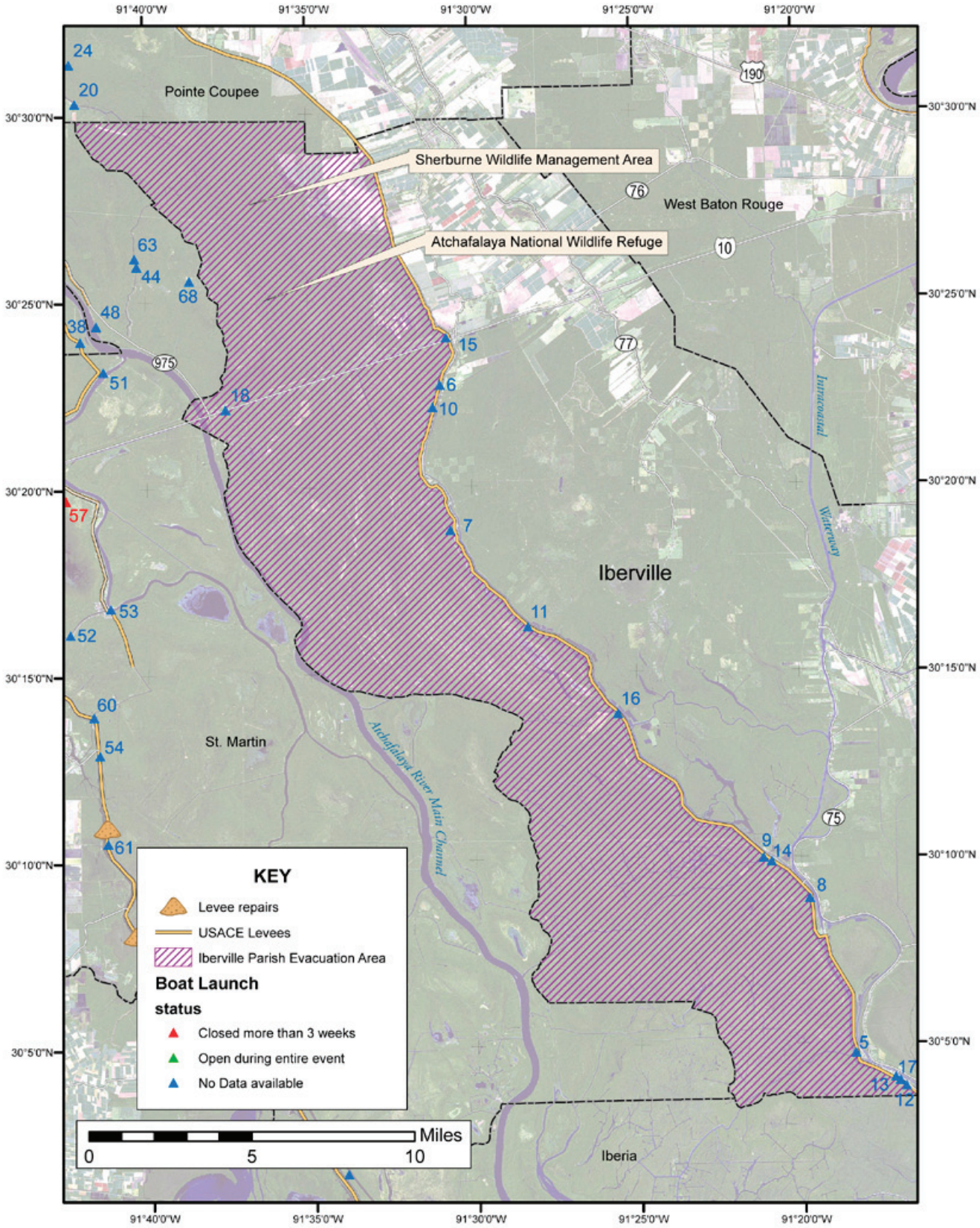


*Figure 25. Areas of Iberville Parish exhibiting public health and safety issues*

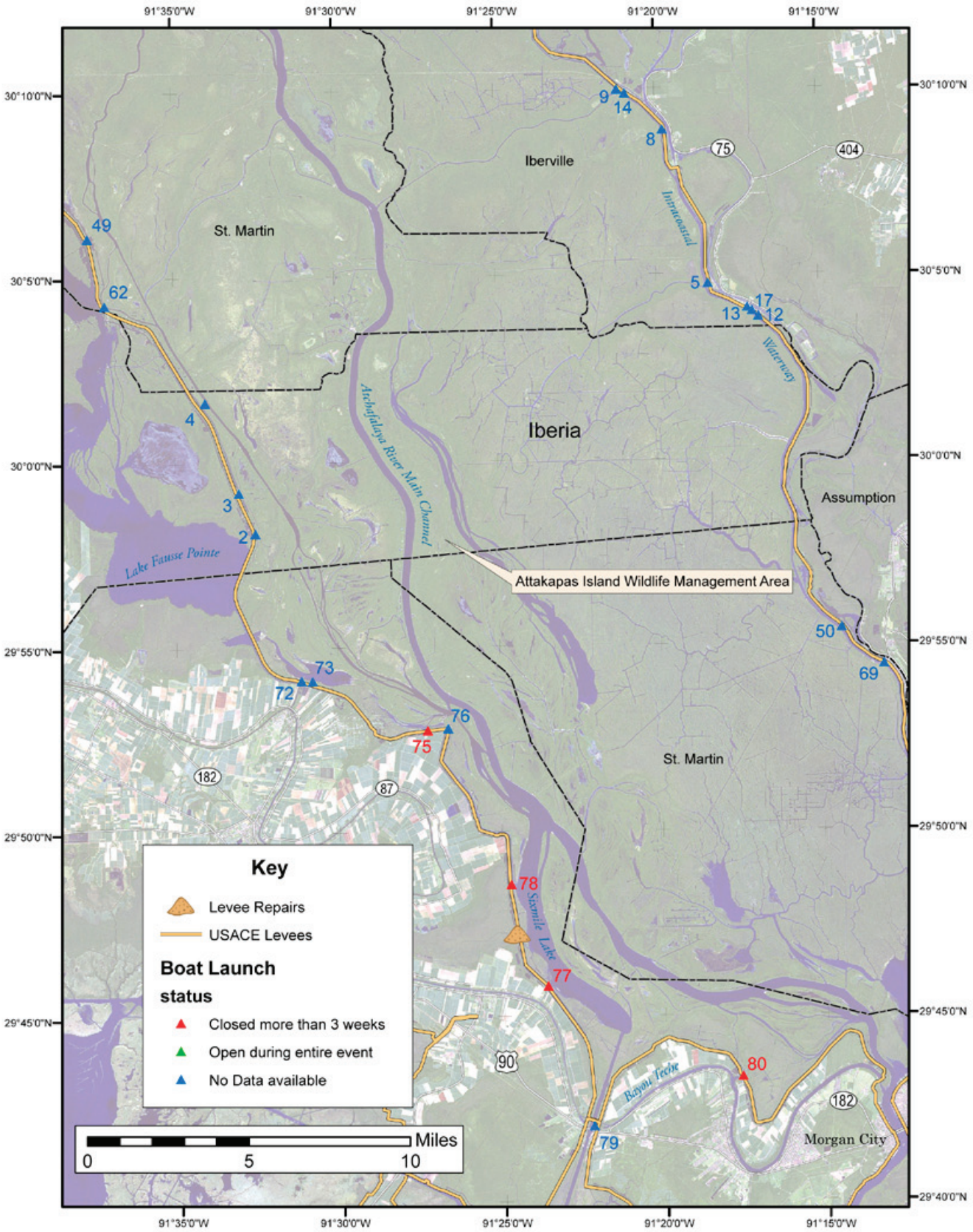


*Figure 26. Areas of Iberia Parish exhibiting public health and safety issues*

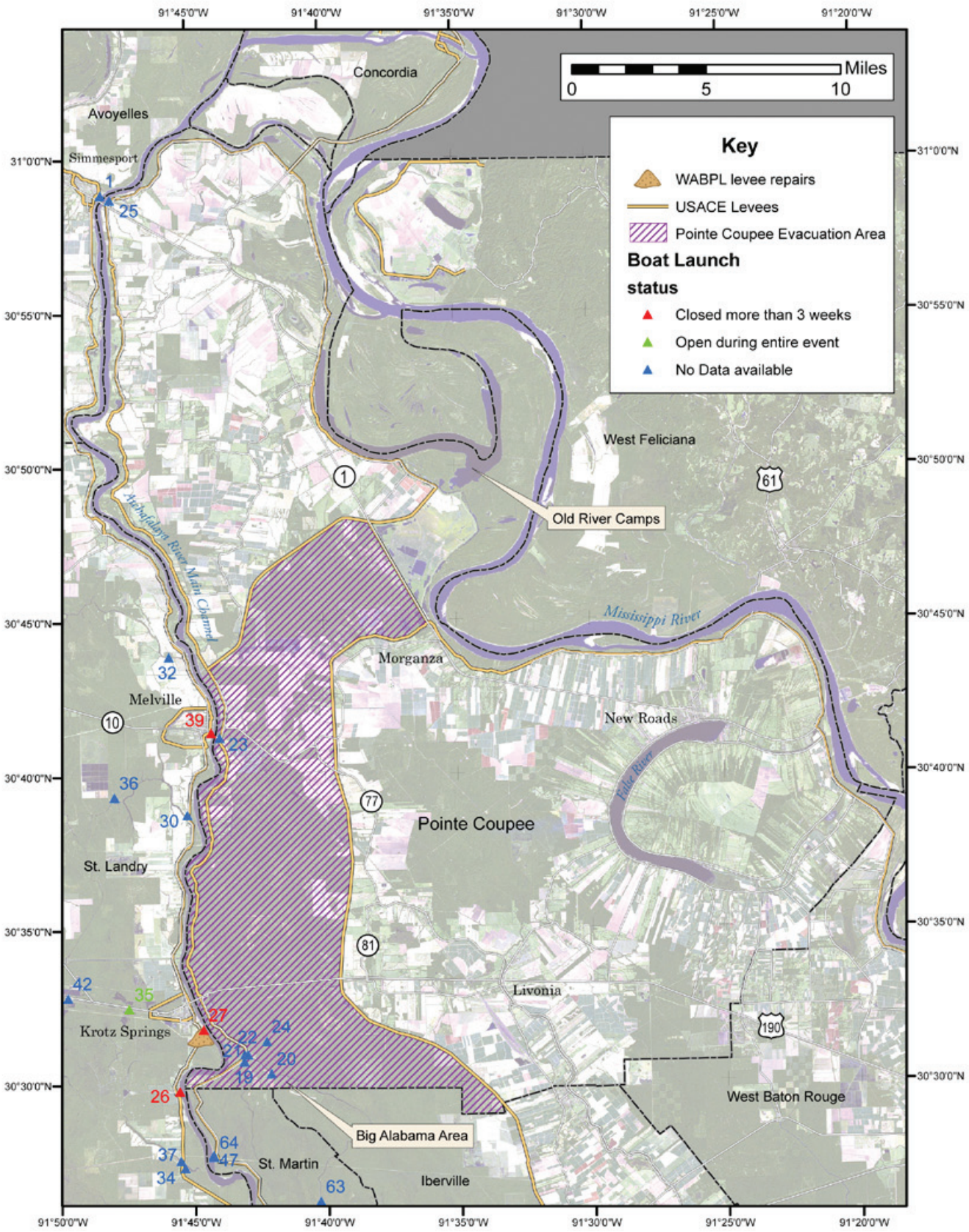


*Figure 27. Areas of Pointe Coupee Parish exhibiting public health and safety issues*

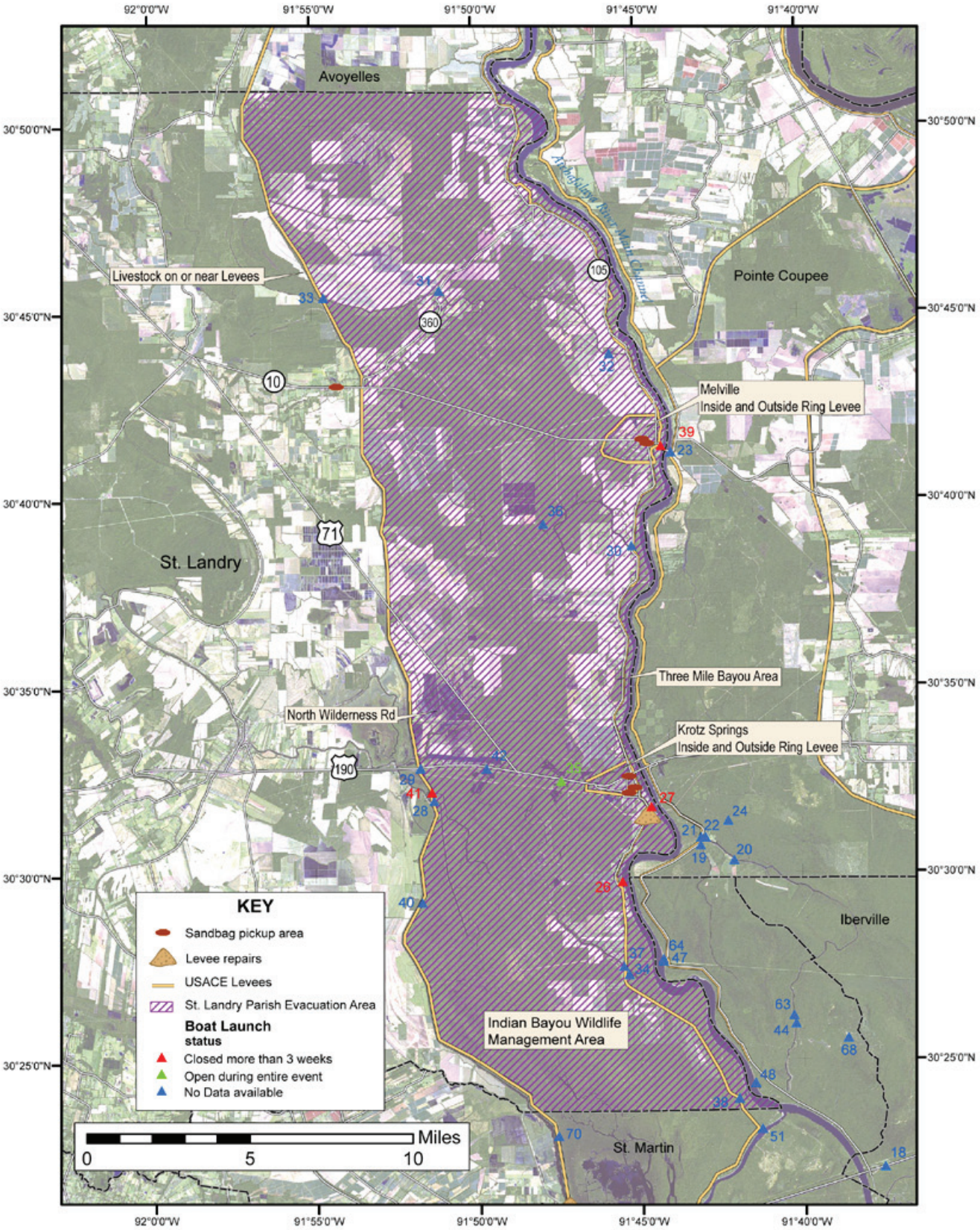


*Figure 28. Areas of St. Landry Parish exhibiting public health and safety issues*

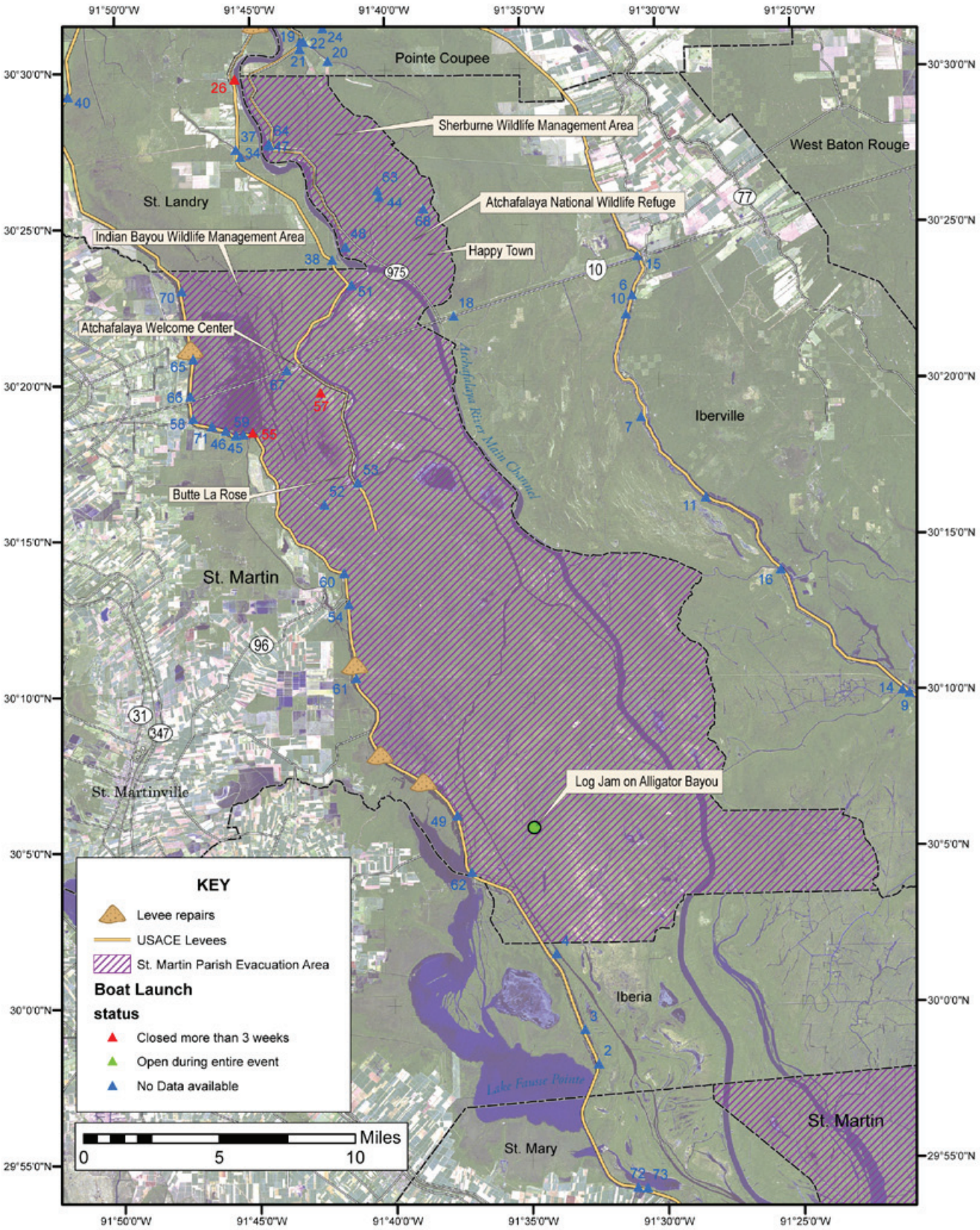


*Figure 29. Areas of Upper St. Martin Parish exhibiting public health and safety issues*

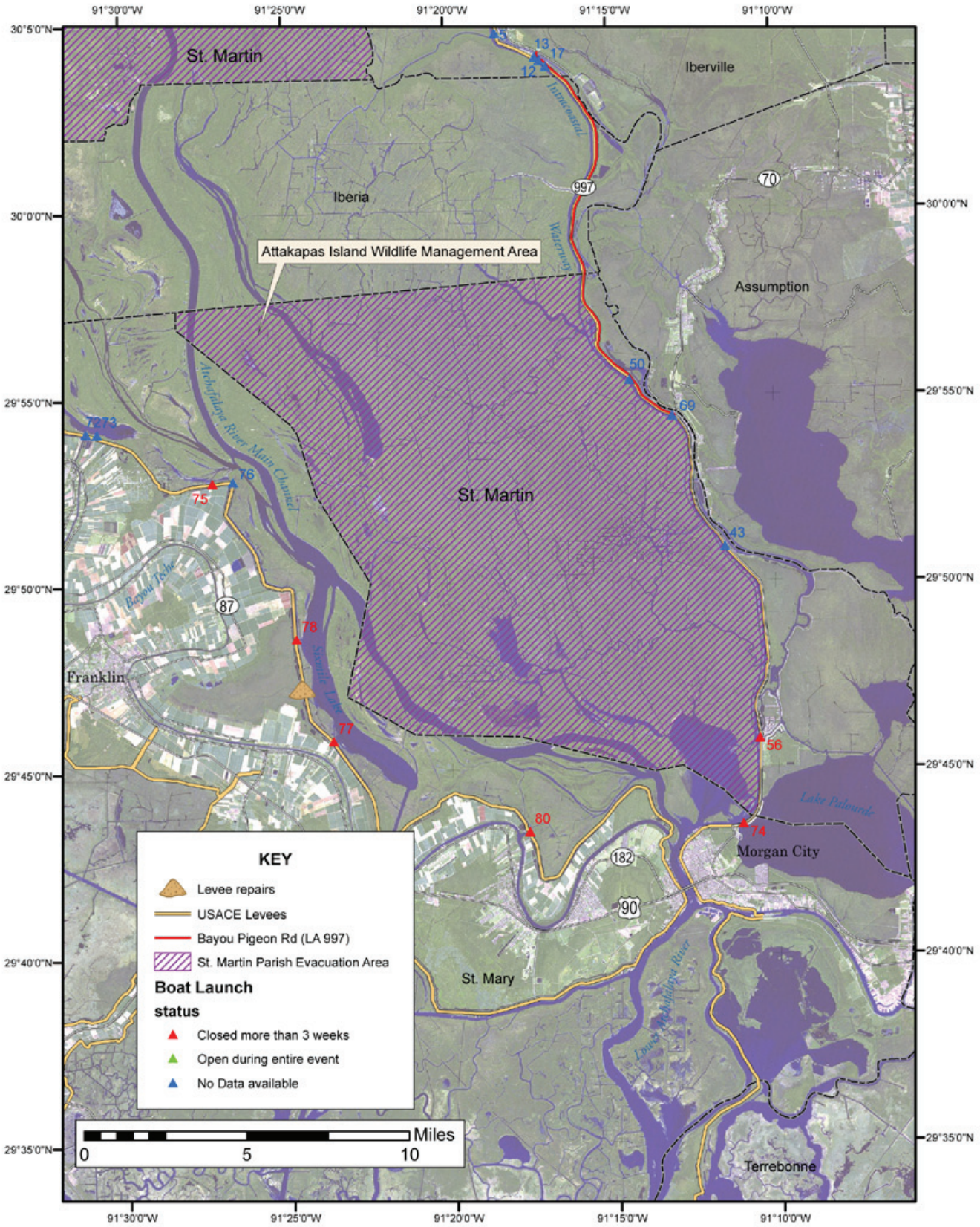


*Figure 30. Areas of Lower St. Martin Parish exhibiting public health and safety issues*

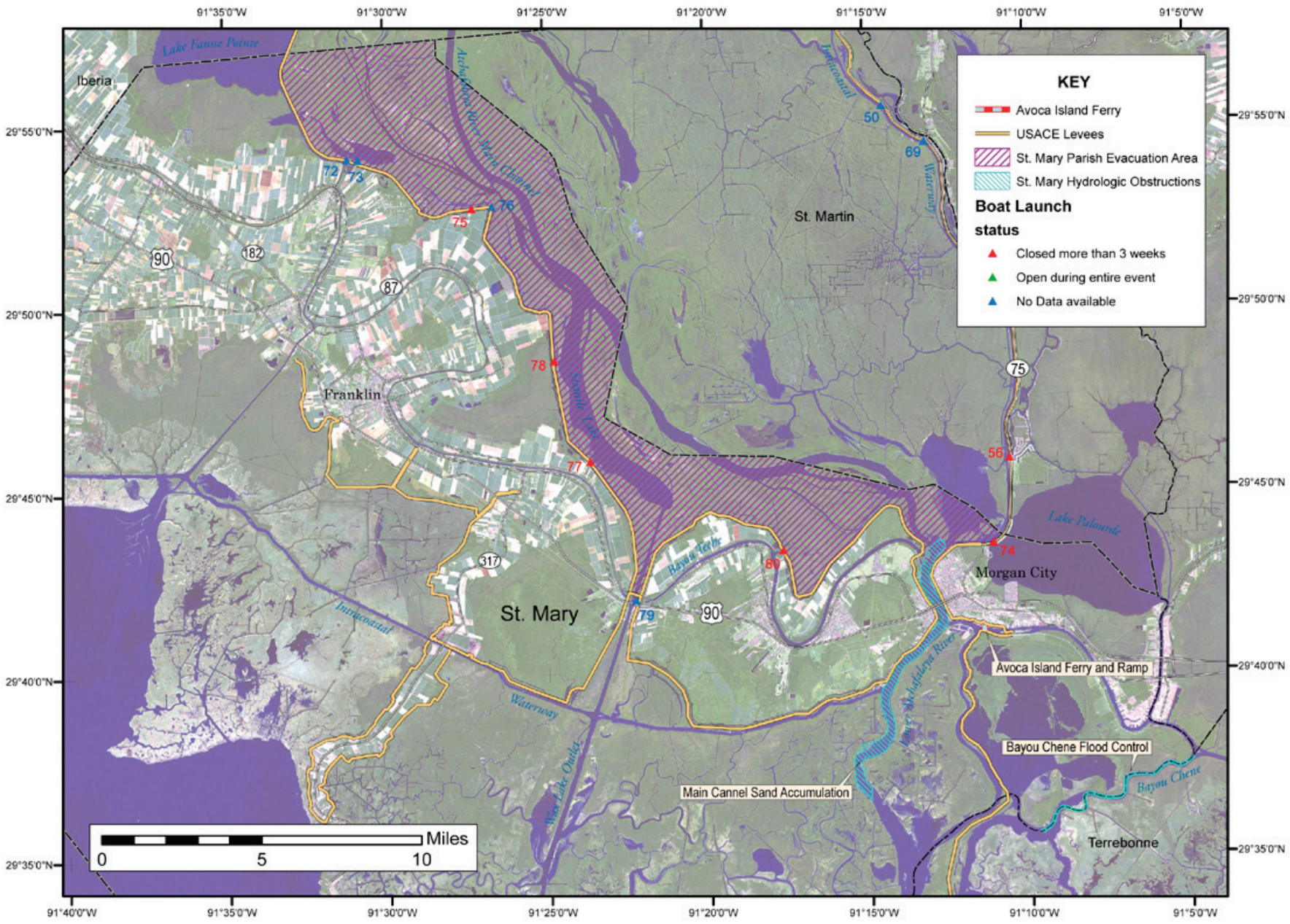


*Figure 31. Areas of St. Mary Parish exhibiting public health and safety issues*

### Post- Inundation

On June 22nd, St Mary Parish requested the GOHSEP have special HESCO equipment provided to remove the HESCO Concertainers (a.k.a. baskets) from highways and ditches where they created a "public safety issue" (Duval Arthur, mission detail to GOHSEP).

As suggested in Section 4.2, during the inundation period, wildlife relocated to higher areas, such as levees, railroads, roadways, camps, and residences. LDWF requested that people be mindful of displaced wildlife and be careful when reentering structures or when moving objects. Species of concern were alligators and snakes.

As mentioned in Section 3.7, residences and camps equipped with water wells or hooked-up to small local public water utilities were subject to flooding of their water supply distribution system. Cleaning and chlorination of the well and plumbing may be necessary to reduce exposure to potential pathogens.

While the floodwater receded, it was observed that patches of invasive plant and other debris created jams within some of the bayous. Similarly, the Atchafalaya Basin Levee District reported that scour holes had formed downstream from the Morganza Spillway (Figure 17a).

## Summary of Water Quality Sampling

Surface water quality sampling was performed at an estimated 298 sampling sites within the Basin (Figure 32). Some of the sampling, including the LDEQ, LSU (under contract by the USACE), and the USGS NASQUAN and synoptic station samples, were already scheduled when the flood occurred. Others sampling sites were added as funding became available or the need was identified (e.g. in the case of the monitoring plan developed collaboratively by LDNR's Atchafalaya Basin Program TAG).

### Surface Water

#### *Louisiana Department of Wildlife and Fisheries*

The LDWF collected samples at 22 locations (Figure 32 and Appendix A and B) during the Atchafalaya Basin flood event of 2011. These sites usually had field parameters measured, and the water samples analyzed for cations, total suspended solids (TSS), nutrients, and deuterium and oxygen isotopes (Appendix C and D).

#### *Louisiana Department of Environmental Quality*

The LDEQ collected samples at two locations (Figure 32 and Appendix A) during the Atchafalaya Basin flood event of 2011. These sampling sites are part of their ambient water quality monitoring data program (Appendix D).

#### *U.S. Army Corps of Engineers*

The USACE and LSU collected bi-monthly samples from the East Grand Lake, Buffalo Cove and Henderson Lake areas. The program includes sampling at 113 locations (Figure 32 and Appendix A and B).

#### *U.S. Fish and Wildlife Service*

The USFWS collected field parameter measurements at 42 locations, but water samples were collected at only 12 of these locations (Figure 32, and Appendix A and B) during the Atchafalaya Basin flood event of 2011. Water samples were analyzed for cations, TSS, nutrients, and deuterium and oxygen isotopes (Appendix C and D).

#### *U.S. Geological Survey*

The U.S. Geological Survey (USGS) collected data at 239 locations (Figure 32, and Appendix A and B) during the Atchafalaya Basin flood event of 2011. Water level (stage) values were collected at 96 sites. Field parameters were measured and samples collected for nutrients and isotope analyses at 143 loca-

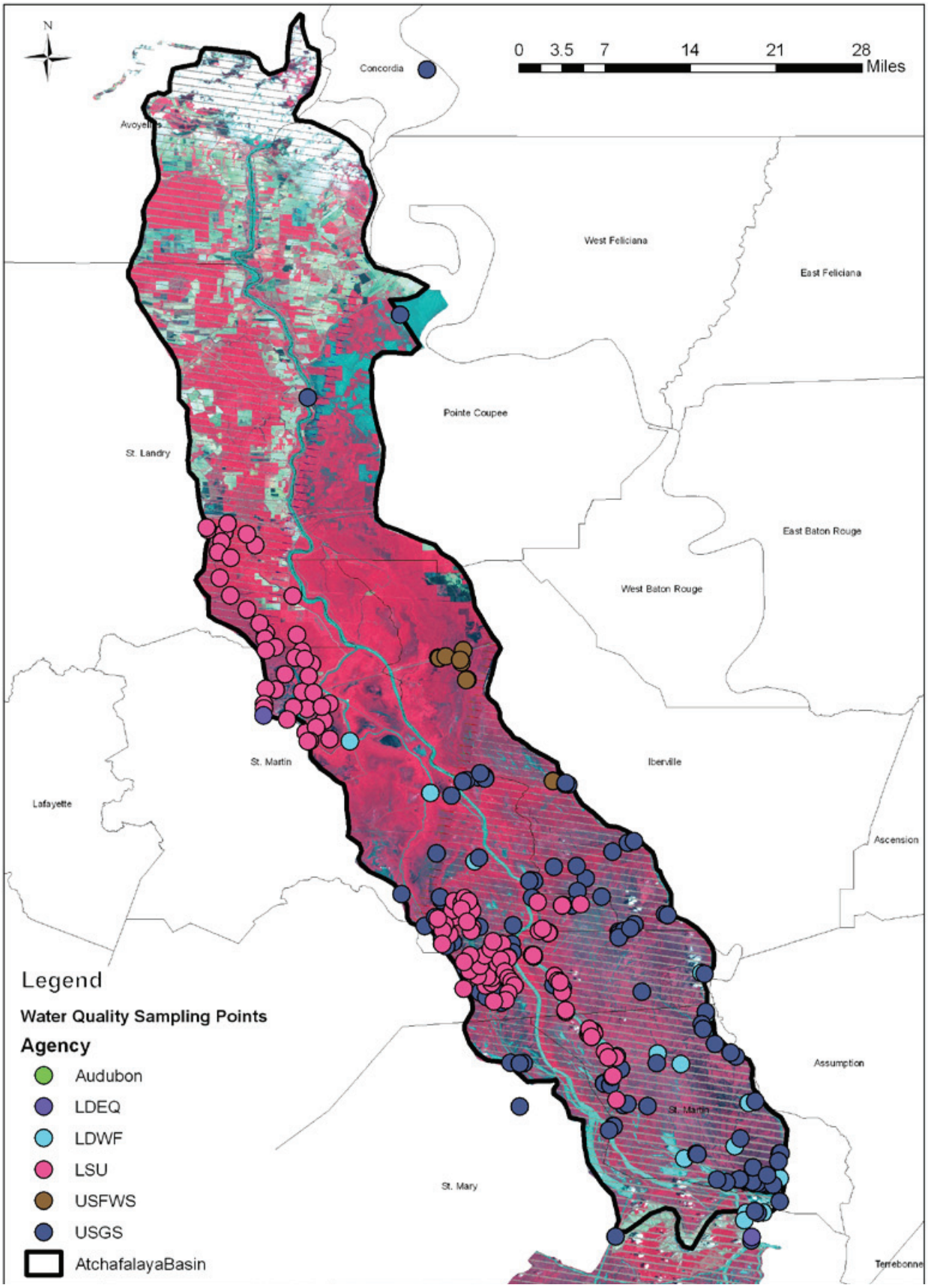


*Figure 32. Location of surface water quality sampling locations (the background satellite imagery is from the May 18, 2011 Landsat7).*

tions. At 112 sampling locations data was collected for an ongoing synoptic survey of the Basin. There were 87 sample locations analyzed for cations, TSS, nutrients, and deuterium and oxygen isotopes (Appendix C and D). In addition, some of the samples were tested for fluorescence and total organic carbon (TOC - Appendix D). For another subset of sites (~70) there were values of TSS were determined. The NASQUAN program of the USGS collected samples at three locations in the Basin and two additional locations nearby on the Mississippi River (Appendix D). In addition, the USGS collected TSS data at two locations on the Atchafalaya River and at one location within the Morganza Floodway.

***National Park Service***

The National Park Service (NPS) assisted in the collection of samples in the northwestern portion of the Basin, in collaboration with the USFWS.

***National Audubon Society***

The National Audubon Society assisted the USGS in the collection of synoptic survey data in the eastern portion of the Basin, as well as collected field parameters at nine continuous monitoring stations (Appendix A).

### Groundwater

During the preparation of this report, no information was available regarding groundwater sampling and analyses within the Basin during the 2011 flood or shortly thereafter.

## Summary of Water Quality Analysis

The purpose of this report, as indicated in the Introduction, is to documents the impact of the 2011 Mississippi River flood event and associated diversions onto the Atchafalaya Basin. The report compiles the data collected by multiple agencies and researchers. The report presents a cursory data analysis. Thorough data analysis and interpretation will be completed by involved researchers at LSU, Virginia Polytechnic Institute and State University (VT), LGS and USGS independently of this report.

### Field Parameters Analysis

Surface water quality sampling was performed at approximately 300 sample sites within the Basin by seven entities: the National Audubon Society, LDEQ, LDWF, LSU, USGS, NPS and USFWS. However, only LDWF, USGS, and USFWS directly collected samples for later laboratory analysis by LGS.

The LDWF collected field parameter results at 22 locations, measurements were taken at these sites for turbidity, temperature, salinity, electric conductivity (EC) and DO. These measurements were made using an YSI 650 Multiparameter Display System with a 6600 V2 Multiparameter water quality sonde or similar equipment. The USFWS collected field parameter results at 11 sites; at these sites measurements were usually made for turbidity, temperature, EC and DO. The USGS collected field parameter results at over 100 sites; however, only about 25 locations were sampled during each of the nine sampling events. At these locations samples were taken 10 cm below the surface and near the bottom or at the greatest depth possible for field meter's cable. At these locations EC, temperatures, turbidity, pH, DO, and chlorophyll A measurements were collected using an InSitu Troll 9500 or similar equipment.

***Louisiana Department of Environmental Quality***

The LDEQ, as part of their Ambient Water Quality Monitoring program, collected water temperature, pH, salinity, DO and EC in the field.

***Coastal Protection and Restoration Authority of Louisiana***

The Coastal Protection and Restoration Authority (CPRA) of Louisiana did not participate in sampling and analyses. A portion of the funding used for this report was provided by the Louisiana Coastal Area Science and Technology Program Office through CPRA Implementation, Louisiana Applied Coastal

Engineering and Science Division. CPRA is continuously collecting water level, water temperature, EC and salinity at multiple sites located south of Morgan City and the Wax Lake Outlet. These sites are part of CPRA's Coastwide Reference Monitoring System. The data is available on the LDNR's SONRIS website.

***Louisiana State University***

LSU scientists from the Department of Renewable Natural Resources, as part of their work with the USACE, measured and recorded DO, turbidity, temperature, pH, conductance, flow, vegetation coverage, secchi depth, color and depth at their sites in the East Grand Lake, Buffalo Cove and Henderson Lake areas.

***National Audubon Society***

The National Audubon Society equipped nine sites within the Basin with water quality sensors (temperature, specific conductance, salinity and depth) and/or acoustic Doppler current profilers. Their data was collected on an hourly basis and is not included in the Report's appendices, but will be available on the database.

***U.S. Fish and Wildlife Service***

The USFWS measured and recorded turbidity, temperature, EC and DO at their sampling sites using a variety of equipment.

***U.S. Geological Survey***

USGS collected field parameter results at over 100 locations using an InSitu Troll 9500. Only approximately 25 sites were repeatedly sampled during each of the nine sampling events. The USGS collected turbidity, EC, pH, DO, and temperature measurements (Appendix B). In addition, the USGS staff from the Baton Rouge and Lafayette offices collected synoptic data between May 30 and November 10 at approximately 70 locations. At these sites typically turbidity, EC, DO, pH, temperature, and flow velocity and direction were measured. The variation of three parameters is very small as indicated by consistent values and standard deviations that were a small percentage of average values: EC 1.7%, pH 2.4%, and temperature 3.6%. The mean direction of flow's azimuth was 149°±45.2°, had a standard deviation of approximately 30%. Three parameters varied widely throughout the eastern Basin: DO 3.06 ± 1.38 mg/L (standard deviation is 45% of mean), flow velocity 1.265 ± 0.974 ft/s (standard deviation is 77% of mean), and turbidity 24.78 ± 22.22 Nephelometric Turbidity Units (NTU) (standard deviation is 90% of mean). DO generally decreased southward away from the Morganza Spillway and towards the eastern edge of the Basin (Figure 33). Flow velocity generally had highest values at opposite ends of the study area, near the Morganza Spillway and near Wax Lake delta area near the southern end of the Atchafalaya Basin (Figure 34). The turbidity values generally decreased southward away from the Morganza Spillway and towards the eastern edges of the Basin (Figure 35).

## Influence of Depth on Measured Values

Depth of field measurement usually appeared to influence concentrations of dissolved species such as EC, pH, Chlorophyll A, and DO (Figures 36 to 39) less than it influenced turbidity, which increased significantly with depth (Figure 40). There was a slight increase of conductivity, which averages 0.79 ± 9.85 $\mu$S/cm for deeper measurements relative to surface measurement of EC (Figure 36). This difference was approximately 0.2% of the average EC either shallow or deep. T-test analysis of this difference yielded a t-value of 1.09 and an insignificant statistical confidence of difference of 70.41%.

There was a slight decrease in pH, average of -0.012 ± 0.072 for deeper measurements compared to surface measurements of pH (Figure 37). This difference was approximately 0.2% of the average pH either shallow or deep. There was a slight decrease in pH, which averages -0.012 for deeper measure-

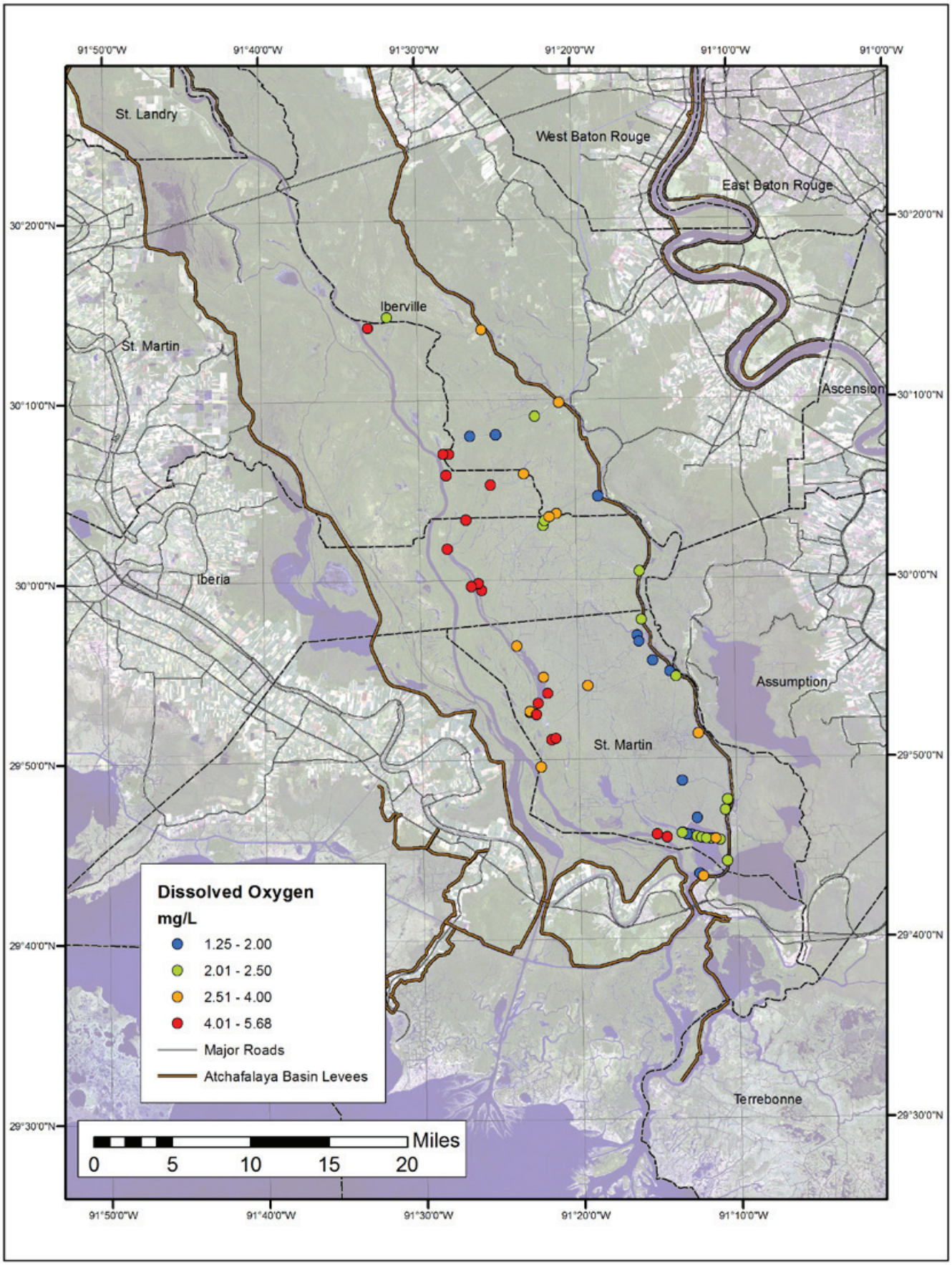


*Figure 33. DO distribution during synoptic study of May 31 and June 2, 2011.*

ments compared to surface measurements of pH (Figure 37). However, T-test analysis of this difference yielded a t-value of 2.32 and a significant statistical confidence of difference of 97.86%.

There was an increase of chlorophyll A (ChlA) concentration, which averages 0.57 ± 1.05 mg/L for deeper measurements compared to surface one (Figure 38). This increase was approximately 10% of the average surface ChlA. value. T- test analysis of this difference yielded a t-value of 6.67 and a significant statistical confidence of difference over 99.99%.

There was a decrease of DO concentration, which averaged -0.174 ± 0.318 mg/L for deeper measurements compared to surface measurement of DO (Figure 39). This decrease was approximately 6% of the average surface DO value. T-test analysis of this difference yielded a t-value of 6.97 and a significant statistical confidence of difference over 99.99%.

The deeper measurement, near the base of the water column, had a significantly higher value of turbidity. The turbidity value near the base of the water column was on average 6.88 ± 13.58 NTU larger than the value at the surface (Figure 40), this increase was approximately 40%. T-test analysis of this difference yielded a t-value of 6.89 and significant statistical confidence of difference over 99.95%.

**Change of Water Quality over Time**

Many of the variables measured in the field changed significantly between May 19 and August 4, 2011. Water temperature increased from an average of 21.40 ± 1.04 ºC to 31.14 ± 0.80 ºC (Figure 41), this difference had a t-test confidence of difference (increase) that was over 99.95%, which was considered a significant increase. Between August 4 and September 9, 2011, the average water temperature decreased from 31.14 ± 0.80 ºC to 25.81 ± 1.14 ºC, the lowest average temperature since June 9, 2011. This change had a t-test confidence of difference (decrease) that was 94.36%, which was almost considered a significant decrease, just missing the 95% criteria for significant differences.

The EC increased from an average of 284.0 ± 11.7 $\mu$S/cm to 452.7 ± 60.8 $\mu$S/cm (Figure 42), this significant difference had a t-test confidence of difference (increase) that was over 99.95%. It appears that EC increased throughout the study period to its highest values on August 4, 2011. There was an insignificant decrease in average EC to 452.0 ± 96.7 $\mu$S/cm (Figure 42).

The DO decreased from an average of 3.700 ± 1.588 mg/L to 3.441 ± 1.766 mg/L (Figure 43); this difference had a t-test confidence of difference (decrease) that was under 20%, which was considered an insignificant change. It appears that DO values decreased between May 19 and June 16, 2011 then recovered to approximately pre-existing conditions by July 7, 2011. Afterward, DO concentrations remained at roughly the same level between July 7 and August 4, 2011 (Figure 43). Lastly, between August 4 and September 9, 2011 DO increased to generally its highest concentrations for this study (Figure 43) where average DO concentration was 5.490 ± 1.672 mg/L.

Turbidity decreased from an average of 24.50 ± 32.34 NTU on May 19, 2011 to 18.73 ± 17.19 NTU on August 4, 2011 (Figure 44); this difference had a t-test confidence of difference (increase) that is under 60%, which was considered an insignificant change. Average turbidity values decreased from of 24.50 ± 32.34 NTU on May 19, 2011 to 5.72 ± 10.15 NTU on June 16, 2011. Average turbidity values recovered to approximately pre-existing conditions by July 7, 2011, with an average of 23.26 ± 20.25 NTU (Figure 44). Lastly, there was a small decline in turbidity to an average of 16.74 ± 5.15 NTU on September 9, 2011.

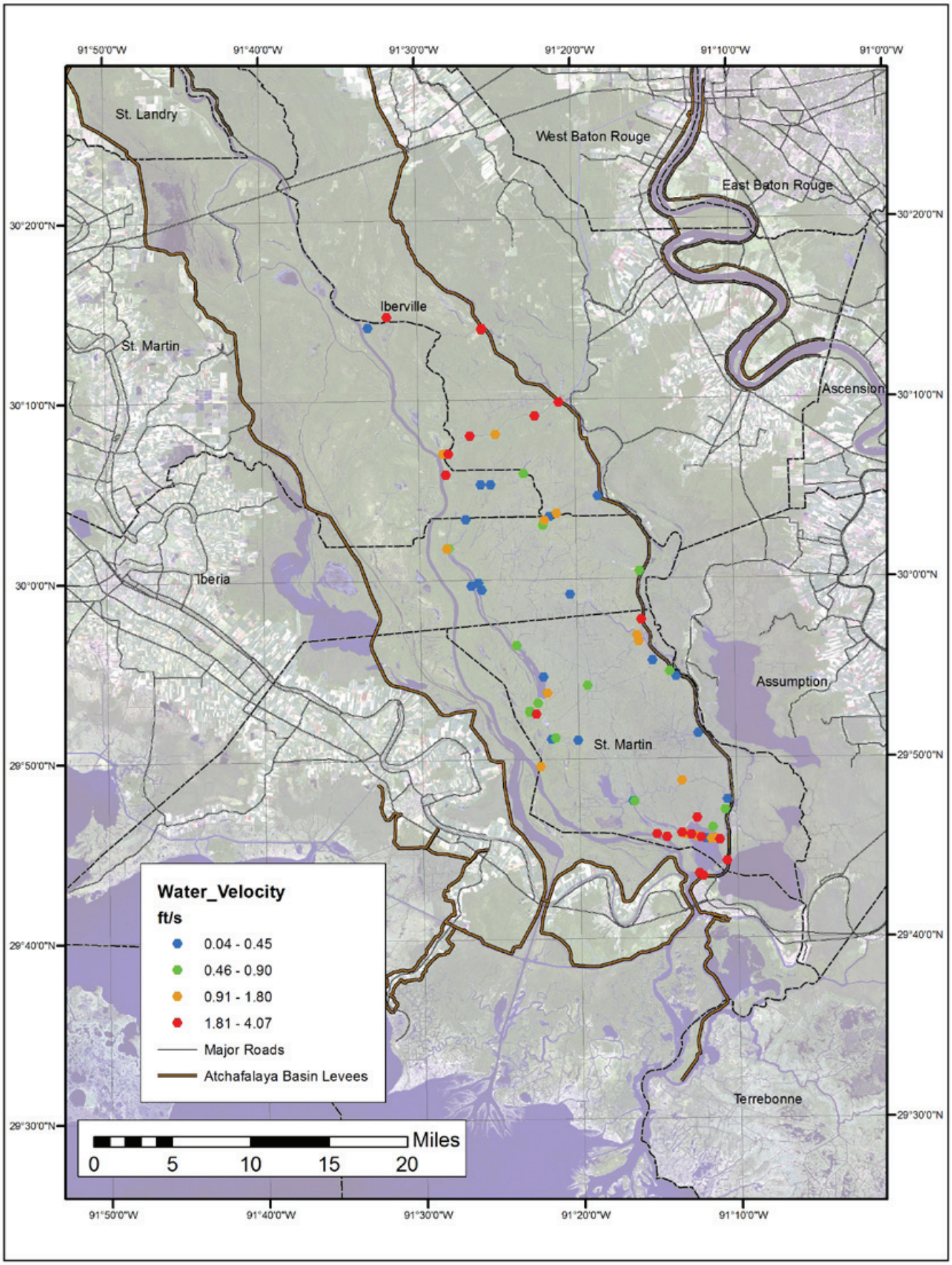


*Figure 34. Flow velocity distribution during synoptic surveys of May 31 and June 2, 2011.*

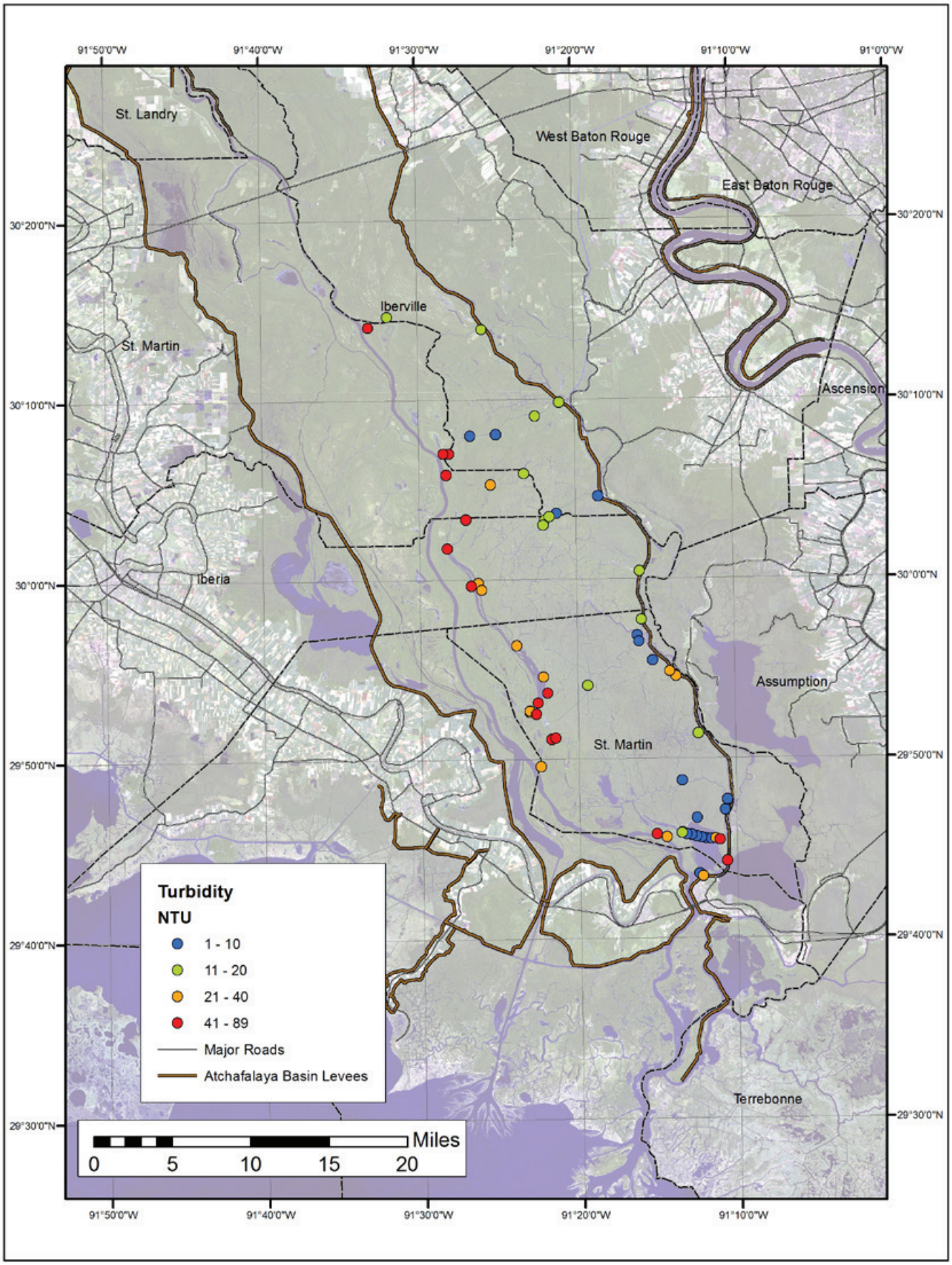


*Figure 35. Turbidity distribution during synoptic surveys of May 31 and June 2, 2011.*

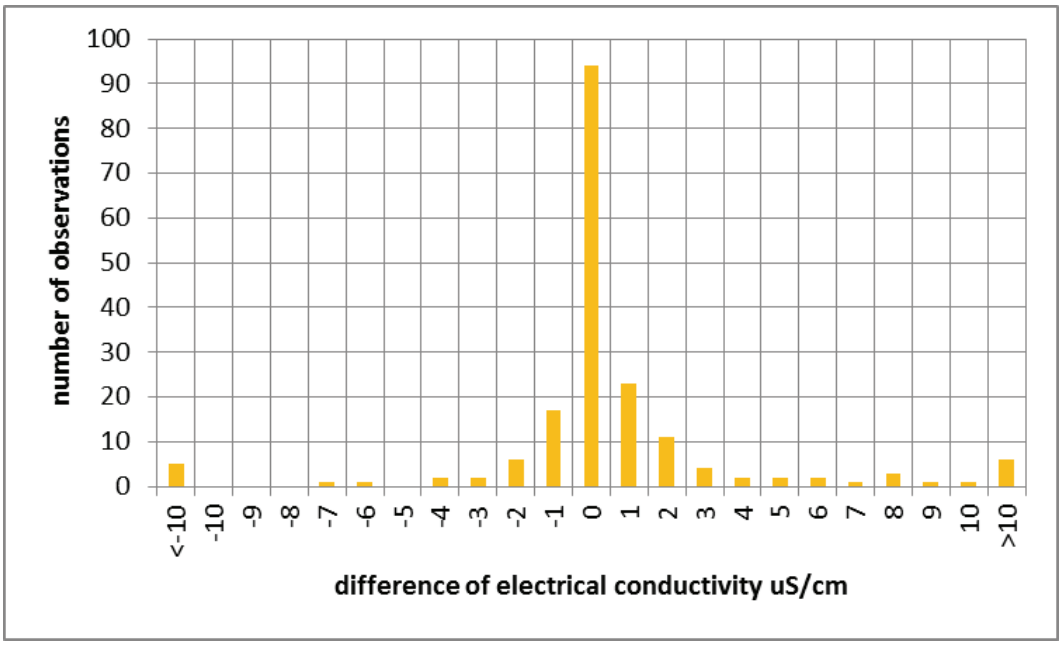


*Figure 36. Difference of deeper measurement of EC relative to surface measurement of EC. (n =184, average difference is 0.79 µS/cm and standard deviation of variability is 9.85 µS/cm)*

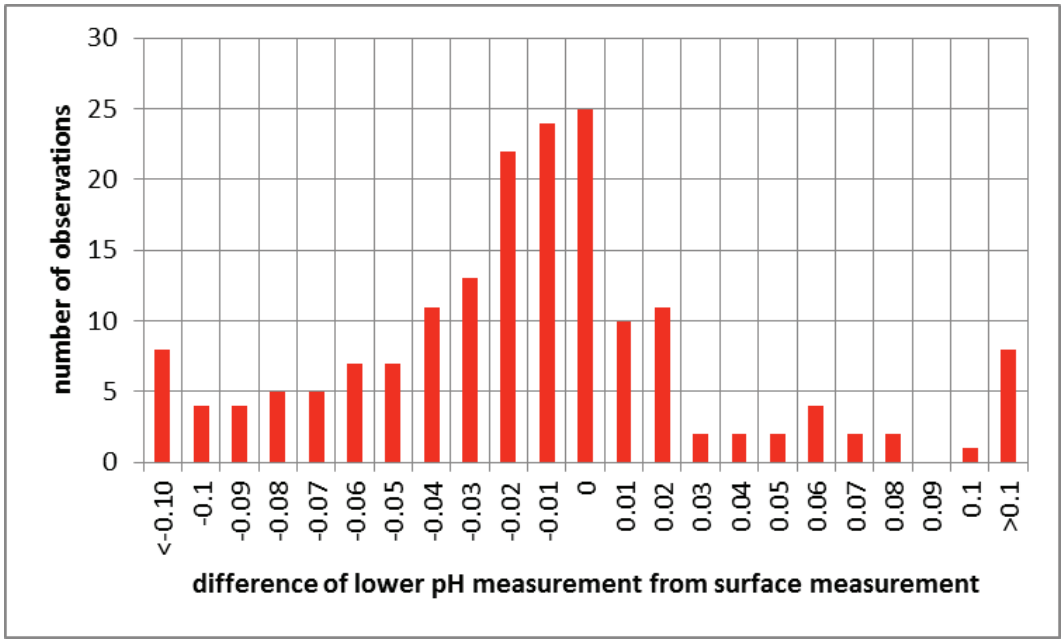


*Figure 37. Difference of deeper measurement of pH relative to surface measurement of pH. (n =180, average difference is -0.012 and standard deviation of variability is 0.072)*

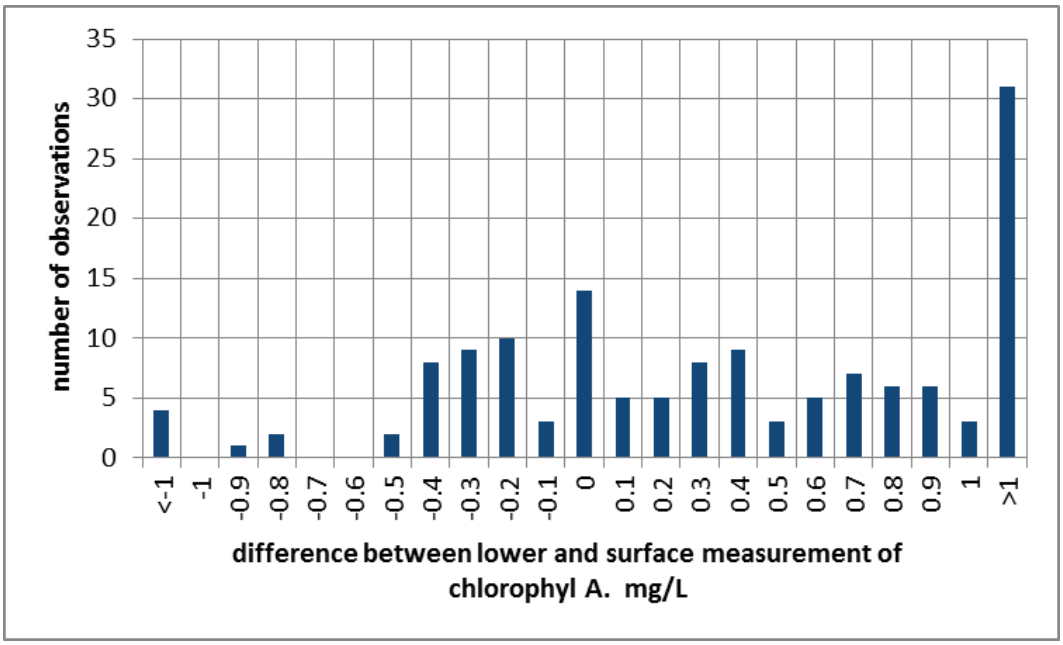


*Figure 38. Difference of relative to surface measurement of chlorophyll A.*
*(n =152, average difference is 0.57 mg/L, and standard deviation of variability is 1.05 mg/L)*

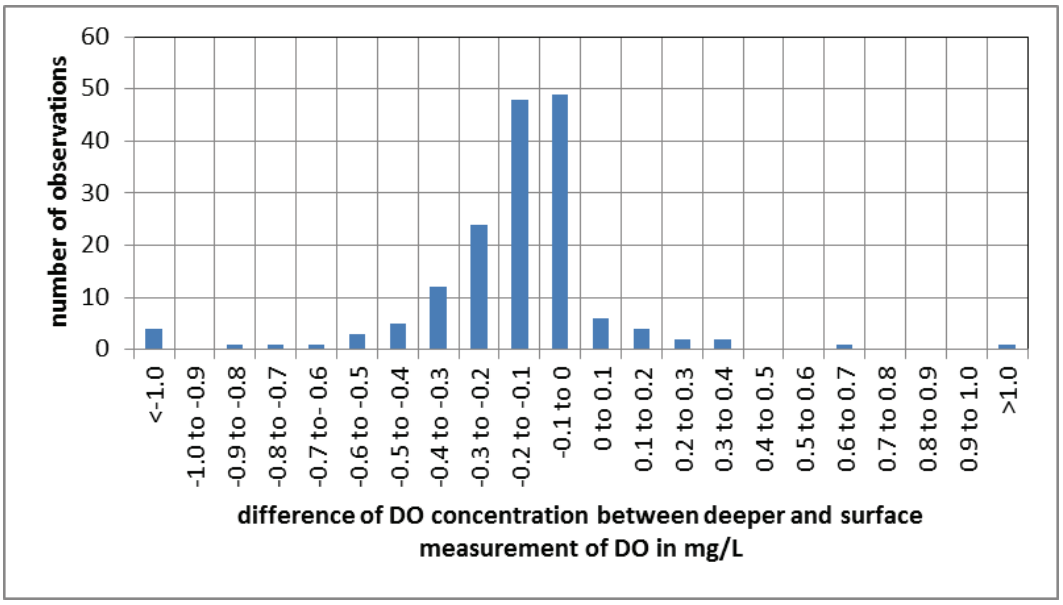


*Figure 39. Difference of deeper relative to surface measurement of DO.*
*(n =163, average difference is -0.174 mg/L, and standard deviation of variability is 0.318 mg/L)*

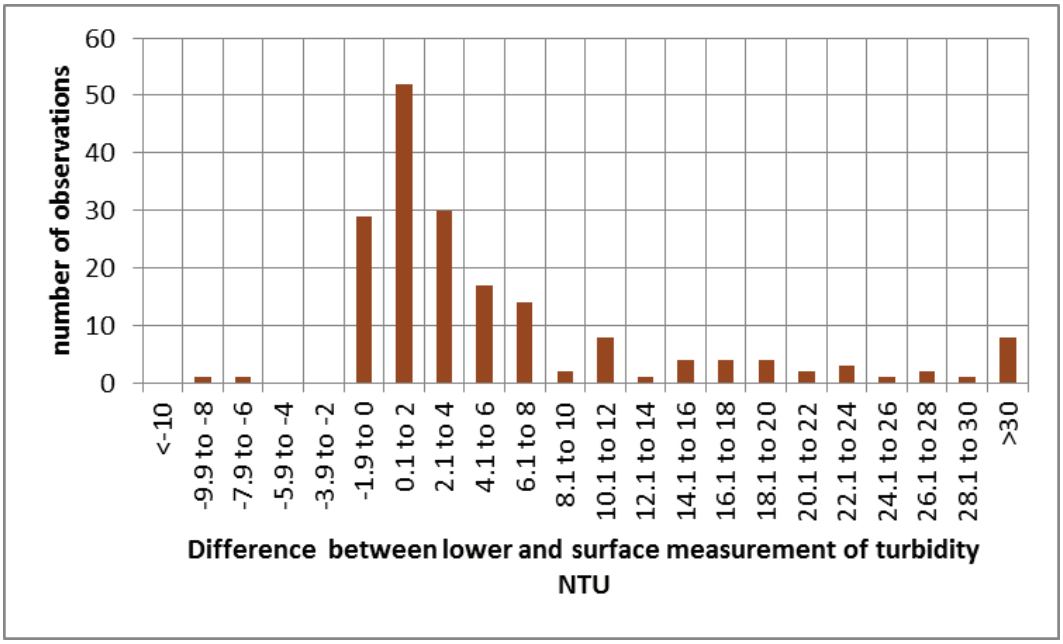


*Figure 40. Difference of deeper relative to surface measurement of turbidity.*
*(n =185, average difference is 6.88 NTU, and standard deviation of variability is 13.58 NTU)*

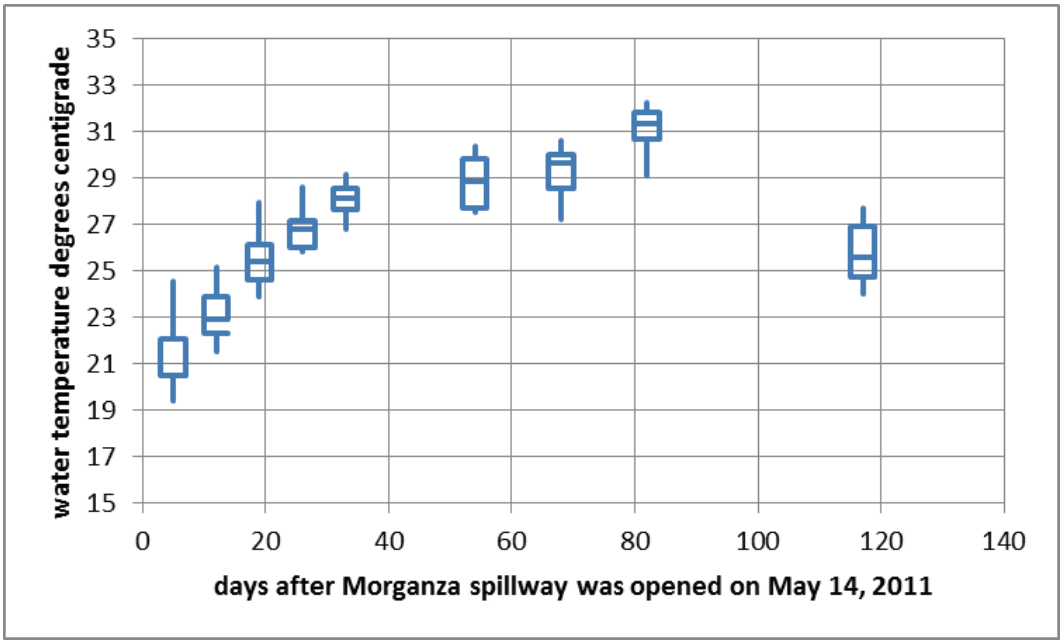


*Figure 41. Change of temperature throughout the study between May 19 and September 9, 2011. From left to right boxes represent samples collected on May 19, 26; June 2, 9, 16; July 7, 21, August 4 and Sept. 9, 2011.*

The pH increased from an average of 7.068 ± 0.170 s.u. on May 19, 2011 to 7.396 ± 0.422 s.u. on September 9, 2011 (Figure 45); this difference had a t-test confidence of difference (increase) that was over 99.95%, which was considered to be a significant change. It appears that pH decrease until a low of 6.558 ± 0.770 s.u. on July 7, 2011, then returned to values of May 19, 2011 and continued to increase to the latest and highest valued measured on September 9, 2011, which averaged 7.726 ± 0.506 s.u. (Figure 45).

***U.S. Army Corps of Engineers***

At the time of the preparation of this report no information was available regarding USACE's analyses within the Basin. Both LSU and USGS collected and analyzed data for the USACE during the event.

***National Park Service***

The NPS assisted, in collaboration with USGS and USFWS, in collecting samples, but did not perform any analyses within the Basin.

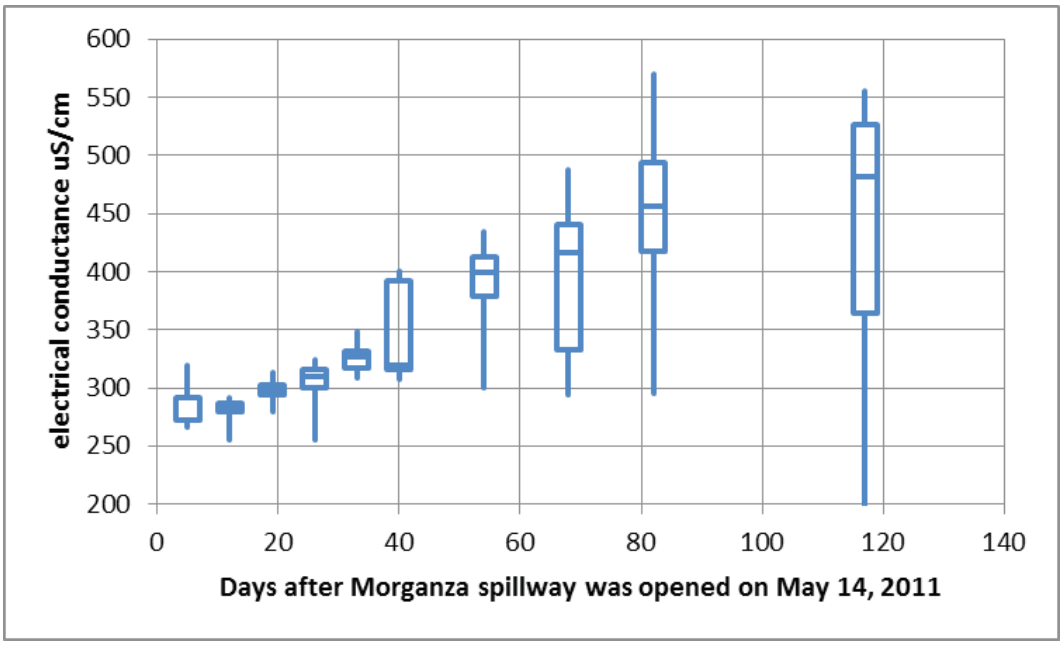


*Figure 42. Change of the EC throughout the study between May 19 and Sept. 9, 2011. From left to right, boxes represent samples collected on May 19, 26; June 2, 9, 16, 23; July 7, 21, August 4 and Sept. 9, 2011.*

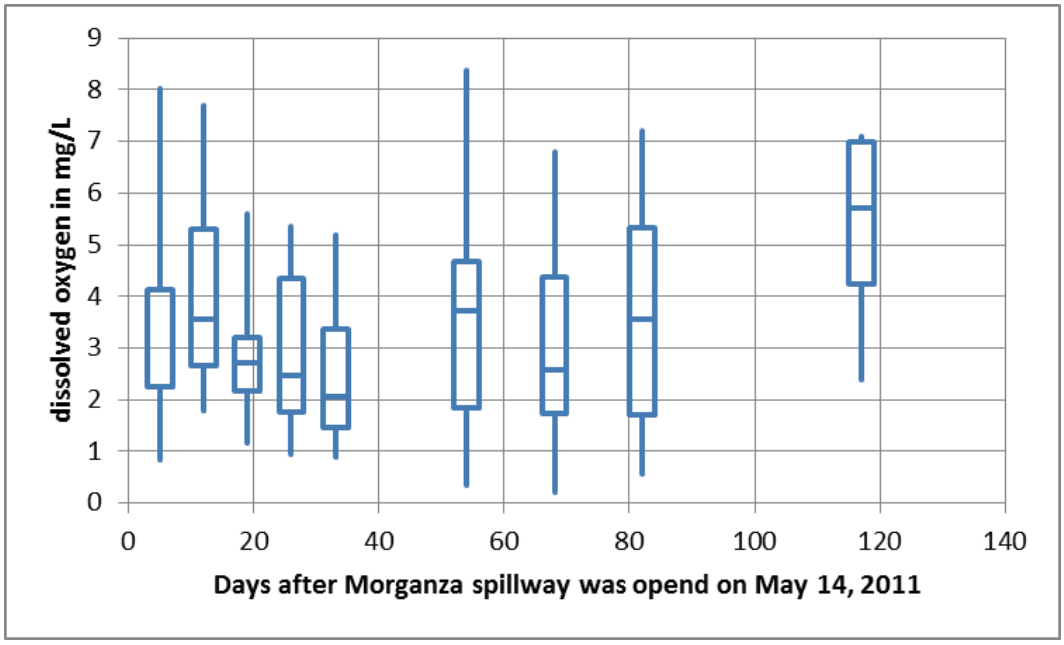


*Figure 43. Change of DO concentration throughout the study between May 19 and Sept. 9, 2011. From left to right boxes represent samples collected on May 19, 26; June 2, 9, 16; July 7, 21, August 4 and Sept. 9, 2011.*

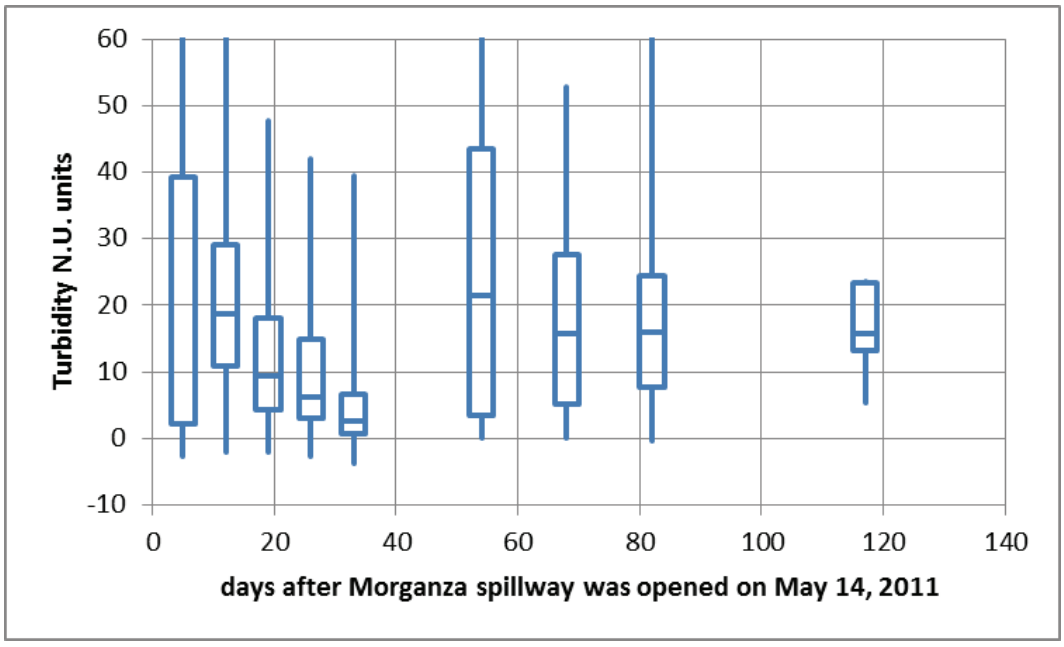


*Figure 44. Change of turbidity throughout the study between May 19 and Sept. 9, 2011. From left to right boxes represent samples collected on May 19, 26; June 2, 9, 16; July 7, 21, August 4 and September 9.*

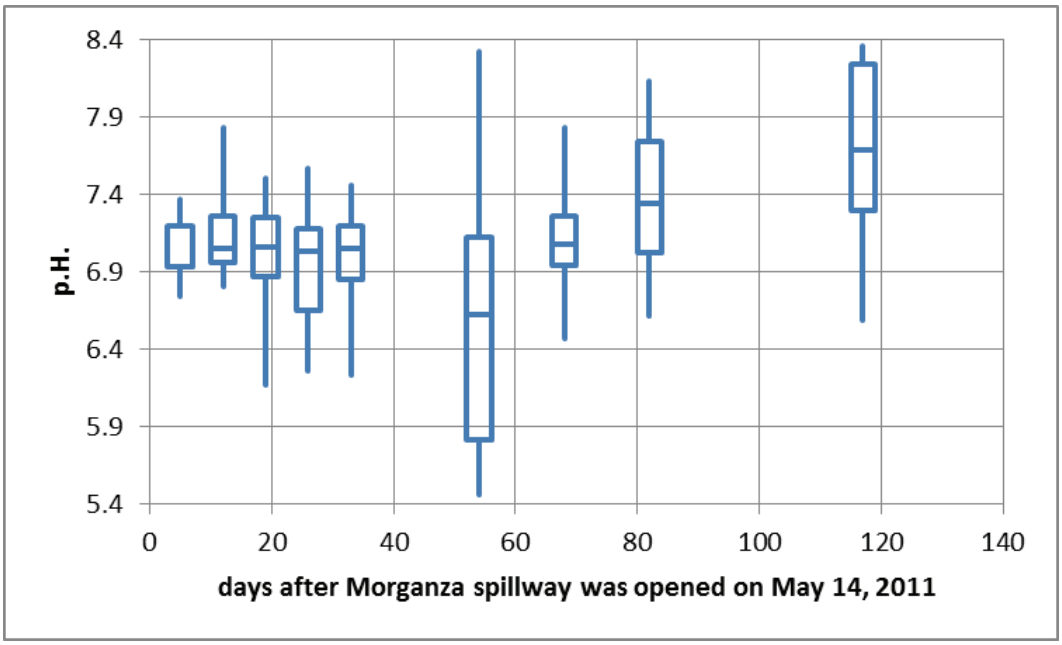


*Figure 45. Change of pH throughout the study between May 19 and Sept.9, 2011. From left to right boxes represent samples collected on May 19, 26; June 2, 9, 16; July 7, 21, August 4 and September 9.*

## Laboratory Analysis

***Louisiana Geological Survey***

The water samples collected earlier by the NPS, LDWF, USGS, and USFWS (eight sets of approximately 45) were analyzed for anions in the LGS' lab, using a Dionex ICS-1000 Ion Chromatography System. In addition, colorimetric analysis was completed for orthophosphate by LGS staff. The samples were also passed through a 10 micron filter to collect suspended particles. The mass of suspended particles (i.e. TSS) was determined by gravimetric analysis. In general, the volume of sample that was filtered ranged between 200 ml and 500 ml per sample.

For this study t-tests involving one test of data compared to no change (zero), or between two data sets collected at different times were completed. The first set involved comparison of changes of parameter values as function of depth. The second involved comparison of two data sets collected at different times. These comparisons were completed using a computer program developed by Boersma (2011).

As part of this project, LGS analyzed the water samples collected for nitrate ($NO_3$-), nitrite ($NO_2$-), orthophosphate ($PO_4^{3-}$) and total suspended solids (TSS). In addition, LGS reported information for fluoride, chloride, sulfate, and total phosphate. Several ions appear to exhibit consistent changes through time after the start of the Atchafalaya Basin flood as a result of opening gates of the Morganza Spillway from May 26 to July 21, 2011.

Chloride concentrations increased slowly during the flooding event. The average chloride concentration was 9.88 ± 0.55 mg/L on May 26, 2011 and increase to 13.59 ± 1.08 mg/L on July 21, 2011. T-test showed this change to be significant with a confidence of this difference over 99.95% (Figure 46). Then chloride concentrations decreased slightly by August 4, 2011 to 9.40 ± 1.54 mg/L, and then increased slightly by September 9 to 12.93 ± 5.80 mg/L (Figure 46).

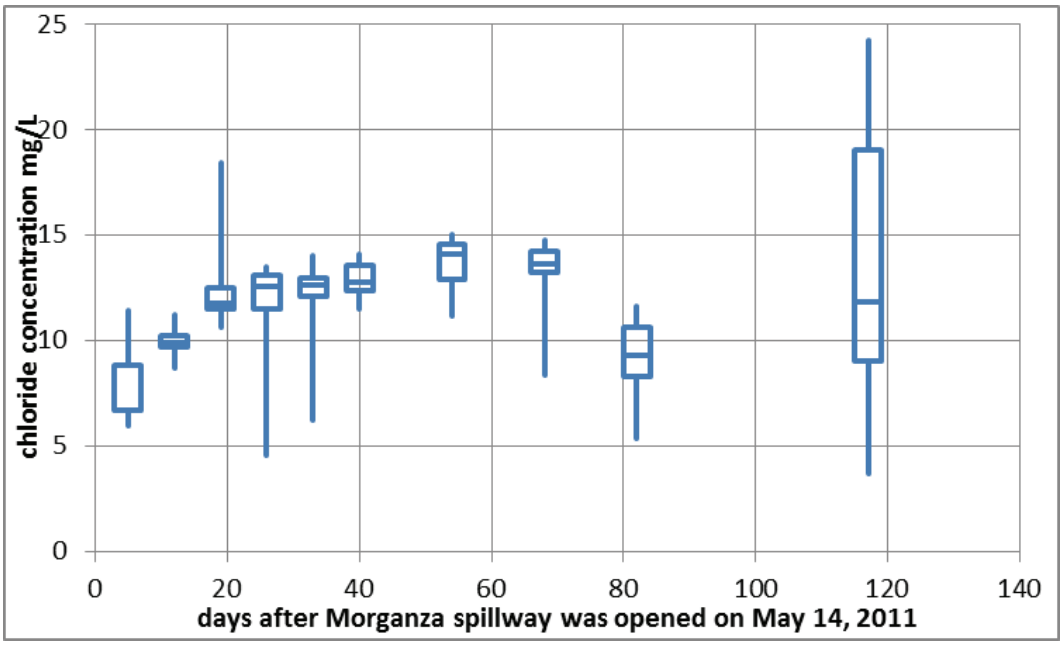


*Figure 46. Change of chloride concentration in the Basin between May 19 and Sept. 9, 2011. From left to right boxes represent samples collected on May 19, 26; June 2, 9, 16, 23; July 7, 21, August 4 and September 9, 2011.*

Fluoride concentrations decreased between May 26 and June 16, 2011, and then increased between June 16 and July 21, 2011 (Figure 46). The average fluoride concentration was 0.237 ± 0.0.030 mg/L on May 26, 2011 and decreased to 0.196 ± 0.043 mg/L on July 21, 2011. T-test showed this change to be significant with a confidence of this difference over 99.95%. It appears that the concentration of fluoride was fairly constant between July 7 and September 9, 2011 (Figure 47).

The average nitrate concentration (as $NO_3^-$) was variable between a low on June 9, 2011 of 2.59 mg/L to a high of 4.07 mg/L on July 7, 2011 (Figure 48). The average nitrate concentration was 2.85 ± 1.35 on May 29, 2011 and increased to 3.96 ± 2.36 mg/L on July 21, 2011. T-test showed this change to be significant with a confidence of this difference over 98.5%. The variability of nitrate concentrations was nearly twice as large for July 21 as for June 16, 2011, as indicated by standard deviations that are on average 0.94 mg/L prior to June 16, 2011 and 2.44 mg/L afterward (Figure 48). Lastly, the nitrate concentrations decreased between August 4, 2011 (2.61 ± 1.96 mg/L) and September 9, 2011 (1.52 ± 0.81 mg/L). These values were lower than at values prior to these dates (Figure 48). Nitrite concentrations remained below the detection limit of the equipment used.

Sulfate concentrations increased between May 19 and July 21, 2011 (Figure 49). The average sulfate concentration was 27.98 ± 0.67 mg/L on May 19, 2011 and increased to 44.89 ± 12.40 mg/L on July 21, 2011. T-test showed this change to be significant with a confidence of difference greater than 99.95%. The sulfate concentration variability increased greatly as indicated by the standard deviation which increased by a factor of 20 between May 19 and July 21, 2011 (Figure 49). After July 21, 2011 the average sulfate concentration remained fairly constant between 42.53 ± 21.91 mg/L on August 4, 2011 and 43.74 ± 13.14 mg/L on September 9, 2011 (Figure 49).

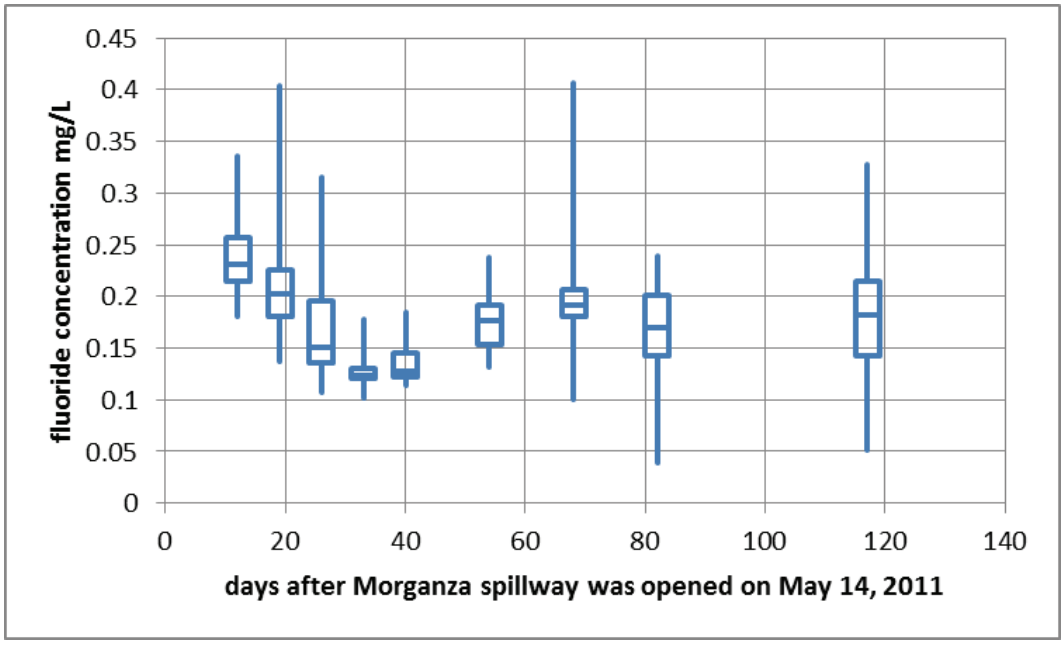


*Figure 47. Change of fluoride concentration between May 19 and Sept. 9, 2011. From left to right boxes represent samples collected on May 26; June 2, 9, 16, 23; July 7, 21, August 4 and September 9, 2011.*

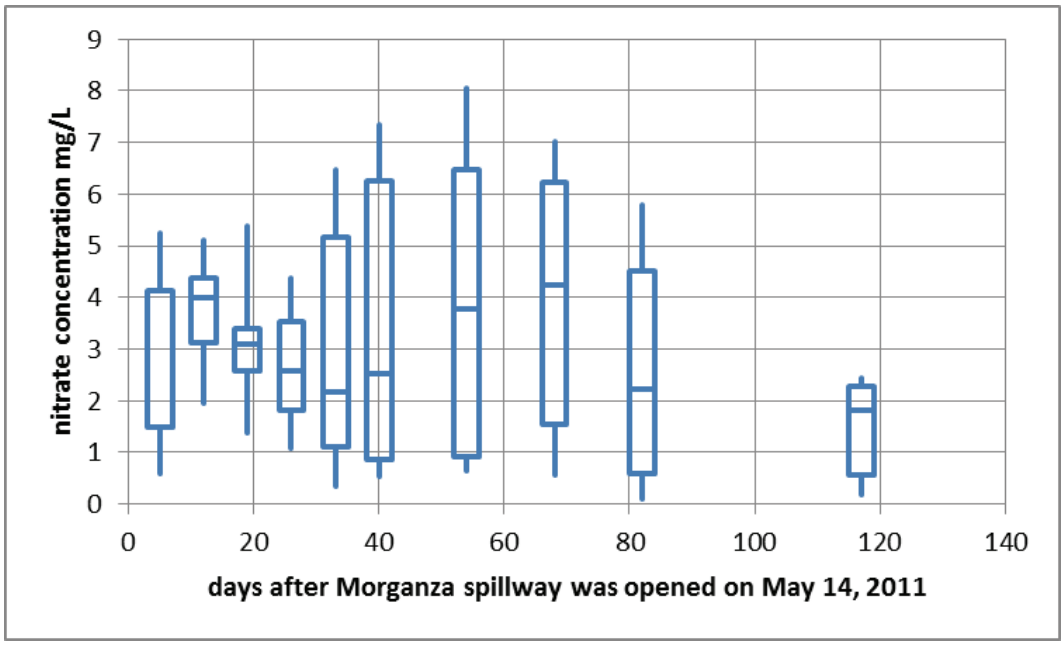


*Figure 48. Change of nitrate concentration between May 19 and Sept. 9, 2011. From left to right boxes represent samples collected on May 19, 26; June 2, 9, 16, 23; July 7, 21, August 4 and September 9, 2011.*

TSS concentrations decreased between May 19 and June 23, 2011 and increased between June 23 and July 7 (Figure 50). The average TSS concentration was 88.0 ± 107.1 mg/L on May 19, 2011 and decreased to 43.8 ± 33.5 mg/L on July 7, 2011. This change was determined with use of a t-test to be significant with a confidence of this difference over 97.5%. TSS concentrations continued to decrease to 38.3 ± 30.9 mg/L on July 21, 2011. This change between May 19 and July 7, 2011 was determined with use of a t-test to be significant with a confidence of difference of 98.9%. There were a small number of sites with TSS concentrations less than 1 mg/L, but this is an increasing number of sites (Figure 51). After July 21 the concentration of TSS decreased to a fairly constant concentration of 26.03 ± 20.34 mg/L on August 4, 23.17 ± 9.72 mg/L on September (Figure 51) and 25.10 ± 12.12 mg/L on October 12.

Total phosphate concentrations experienced an early decrease between May 26 and June 2-9, 2011, and then a slow increase to July 7, 2011, followed by a decrease thereafter (Figure 52). The average phosphate concentration was 1.091 ± 0.044 mg/L on May 26, 2011 and decreased to 0.961 ± 0.105 mg/L on July 21, 2011. This change was determined with use of a t-test to be significant with a confidence of this difference over 99.95%. The variability of phosphate concentrations as expressed by standard deviations appears to increase during the flood event increasing from 0.044 mg/L on May 26, 2011 to 0.388 mg/L July 7, 2011 and then decreasing to 0.105 mg/L on July 21, 2011 (Figure 53). After July 21, 2011 the concentration of phosphate decreased greatly for August 4 and September 9, 2011 (Figure 53).

It appears that nutrients (nitrate and phosphate) concentrations remained overall fairly steady, but the variation across the Basin increased during the flood event as indicated by increasing standard deviations indicative of locations with low concentration increasing slowly through time and high concentration increasing more quickly through time (Figures 52 and 53).

This change of nutrients was not uniform across the basin; for example, the increase in orthophosphate varied across the Basin (Figure 54). Increases tended to be highest in the northern portion of the Basin and decreased southward, and the scale of the increase decreased from east to west across the Basin

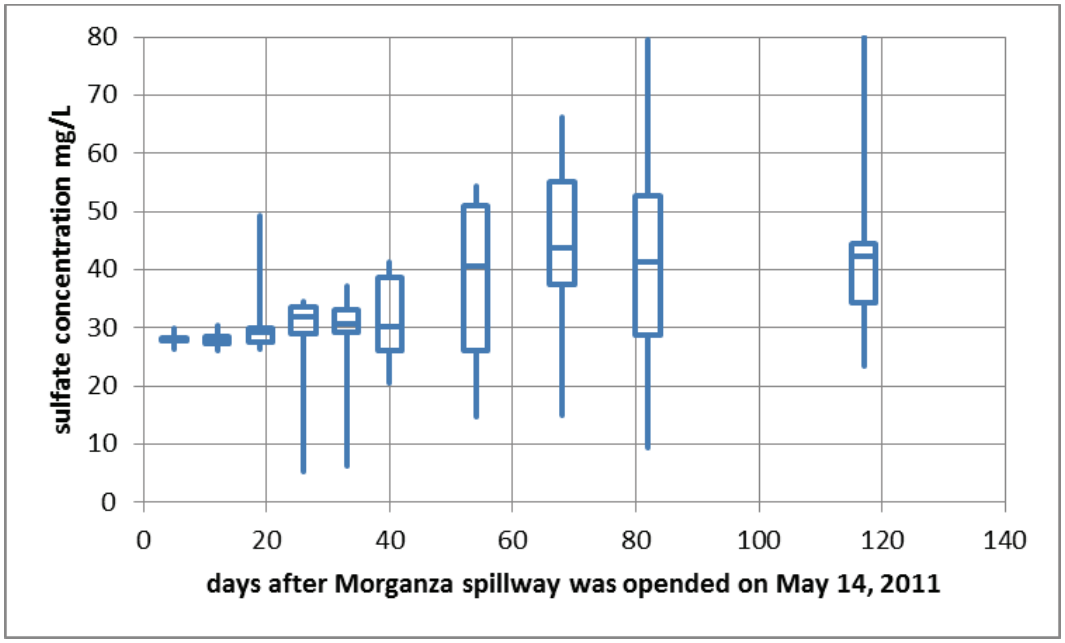


*Figure 49. Change of sulfate concentration between May 19 and Sept. 9, 2011. From left to right boxes represent samples collected on May 19, 26; June 2, 9, 16, 23; July 7, 21, August 4 and September 9, 2011.*

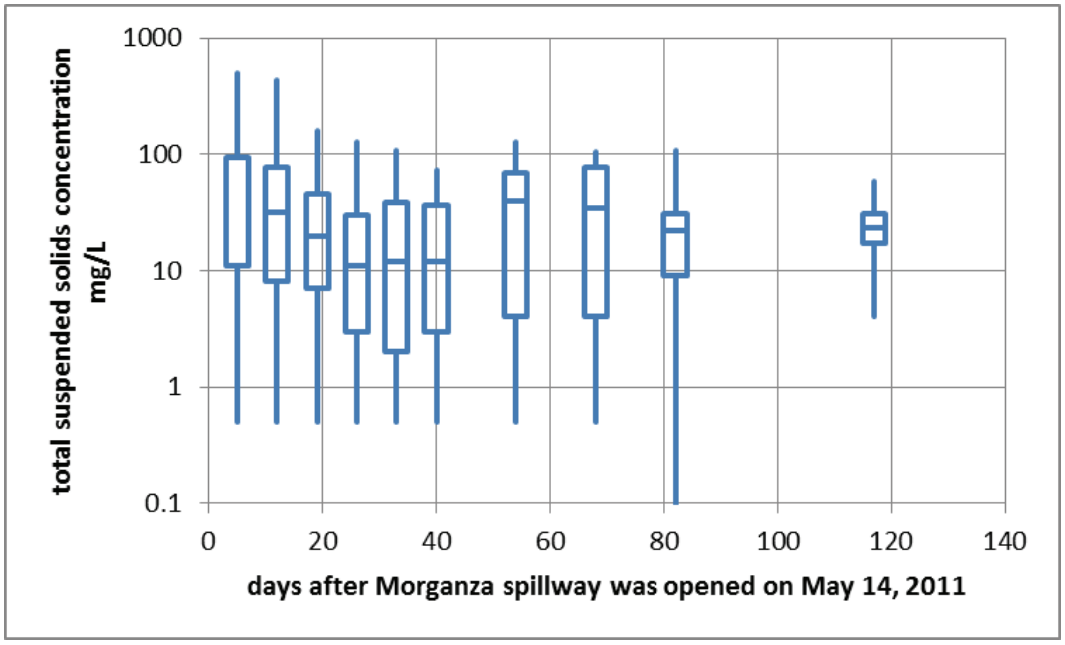


*Figure 50. Change of total suspended solids concentrations between May 19 and Sept. 9, 2011. From left to right boxes represent samples collected on May 19, 26; June 2, 9, 16, 23; July 7, 21, August 4 and September 9, 2011.*

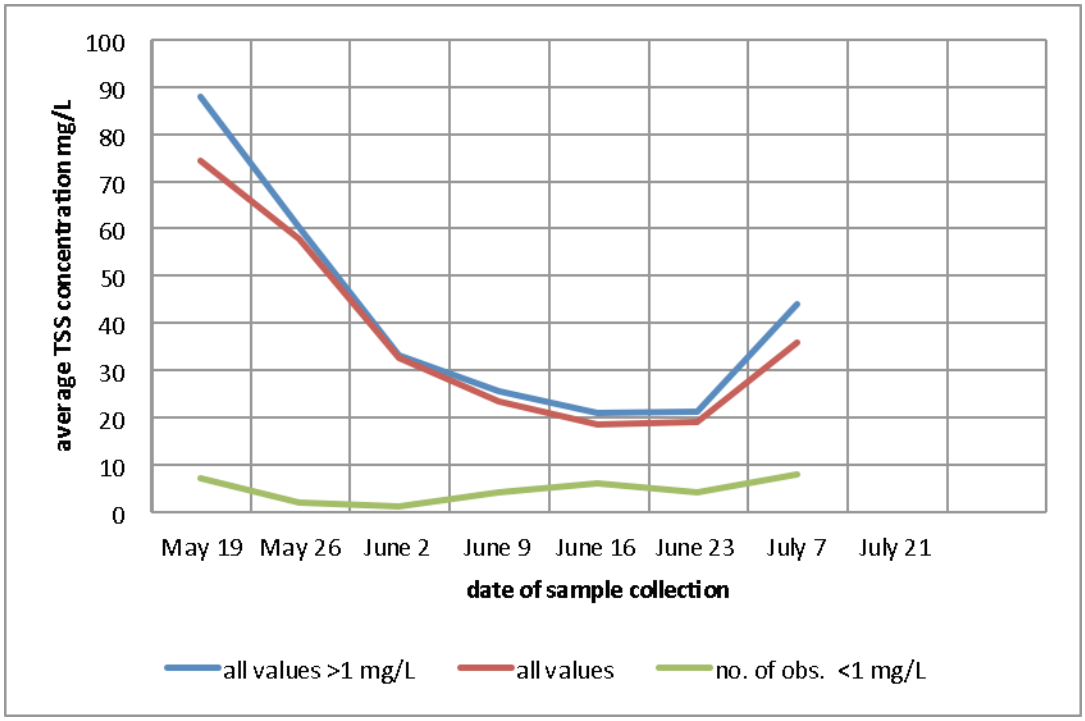


*Figure 51. Change of average of TSS concentration throughout study area.*

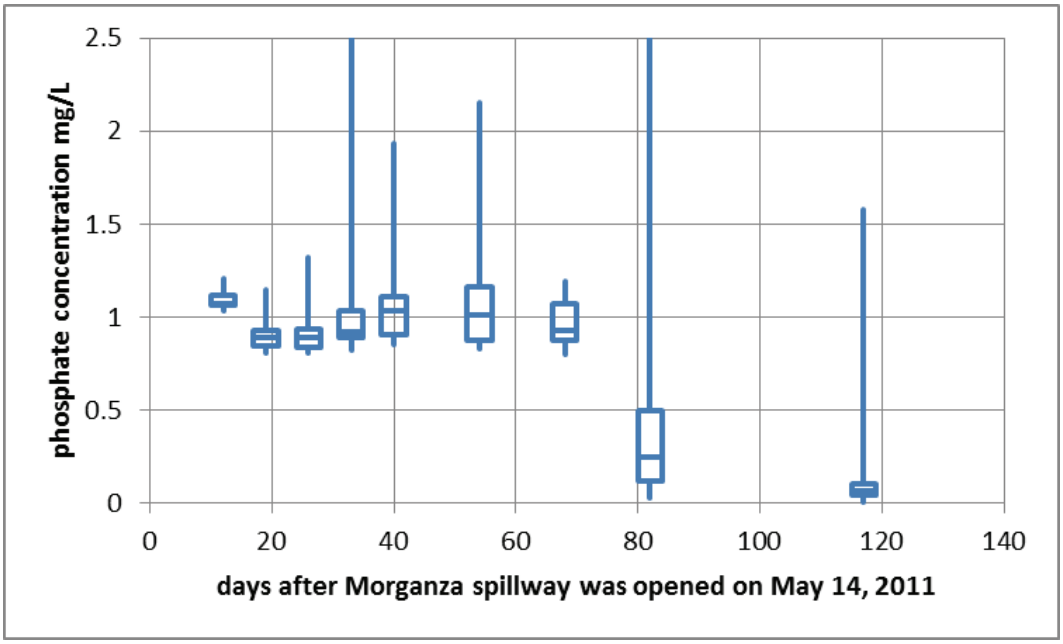


*Figure 52. Change of phosphate concentration between May 19 and Sept. 9, 2011. From left to right boxes represent samples collected on May 26; June 2, 9, 16, 23; July 7, 21, August 4 and September 9, 2011.*

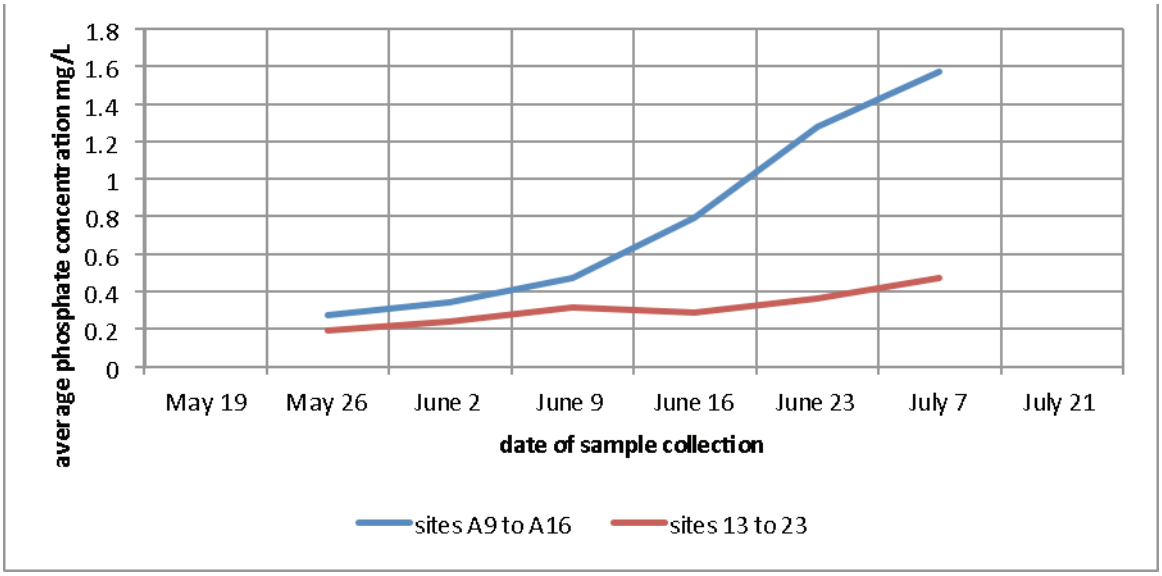


*Figure 53. Phosphate concentrations change at locations near US Hwy 10 and Wax Lake Outlet. The sites near I-10 include A9 to A16. The sites near Wax Lake Outlet include 13 to 23.*

(Figure 54). Change in sulfate concentration tended to decrease towards the center of the Basin and from north to south (Figure 55).

***Louisiana Department of Environmental Quality***

The LDEQ as part of their statewide water quality monitoring network analyzed water quality samples collected from the Atchafalaya River at Morgan City and the West Atchafalaya Borrow Pit Canal northeast of Breaux Bridge for selected metals, volatile organic compounds (VOCs), anions and fecal coliforms (Appendix D).

***Louisiana Department of Health and Hospitals***

LDHH did report analyses performed on samples collected on several water systems located within the basin (Appendix D). The analyses performed were VOCs.

***Louisiana State University***

Surface water samples were analyzed at LSU by the following researchers: Dr. John White in the Department of Oceanography and Coastal Sciences is performing nutrient analyses on the samples collected for the ABP. Dr. John White data is presented in Appendix D. In addition, Dr. Richard Keim in the School of Renewable Natural Resources and Dr. Robert Cook of the Department of Chemistry also performed analyses on some of the water samples (Appendix D).

***Department of Oceanography and Coastal Sciences***

Three main variables were analyzed by this laboratory: soluble reactive phosphate (SRP), total nitrite and nitrate and ammonia. SRP is expressed in concentrations of phosphorous. Total nitrate and nitrite is expressed in concentrations of nitrogen ($NO_2$+$NO_3$-N). The SRP concentration appears to decline slightly between May 19 and June 2 (Figure 56). However, the variability displayed increased significantly as shown by increasing length boxes and whiskers plot (Figure 56). These results were similar to phosphate results within Figure 52. Only a small fraction (approximately 3%) of phosphate, which had a median of approximately 1 mg/L, was in the form of SRP, which had a median of approximately 0.01 mg/L (Figure 56).

The concentration of total nitrate and nitrite (Figure 57) appears to trend in a similar manner as nitrate (Figure 48). Both display a general decrease between May 19 and June 9, 2011. In addition, both yield similar values of approximately 3 to 4 mg/L as nitrate equivalent. This indicates that nitrate was far more abundant than nitrite within Atchafalaya Basin waters.

The ammonia concentration measured for May 26, 2011 samples was below detectable concentrations (44 of the 47 samples analyzed). Therefore, only a small amount of nitrogen appears to be tied up as ammonia. This observation indicates that sheet flow type conditions, exhibiting limited vertical mixing, may have existed in the Basin.

***Department of Chemistry***

Dr. Robert Cook of the Department of Chemistry performed fluorescence and total organic carbon (TOC) analyses on selected samples collected in the Basin (Appendix D). The TOC data was not available at the time this report was prepared. Fluorescence analysis was performed using an absorbance at 254nm. This absorbance is indicative in this case of the presence of more aromatic natural organic matter (NOM), this is probably due to more dissolved organic matter rather than more aromatic dissolved organic carbon (DOC).

***Department of Renewable Natural Resources***

Dr. Richard Keim of the Department of Renewable Natural Resources performed deuterium ($^2H$) and oxygen ($^{18}O$-$^{16}O$) isotope analyses on selected samples (Appendix D). Naturally-occurring, stable isotopes of water ($^{18}O$ and $^2H$) are useful as tracers of water flowpaths because variation in the evapora-

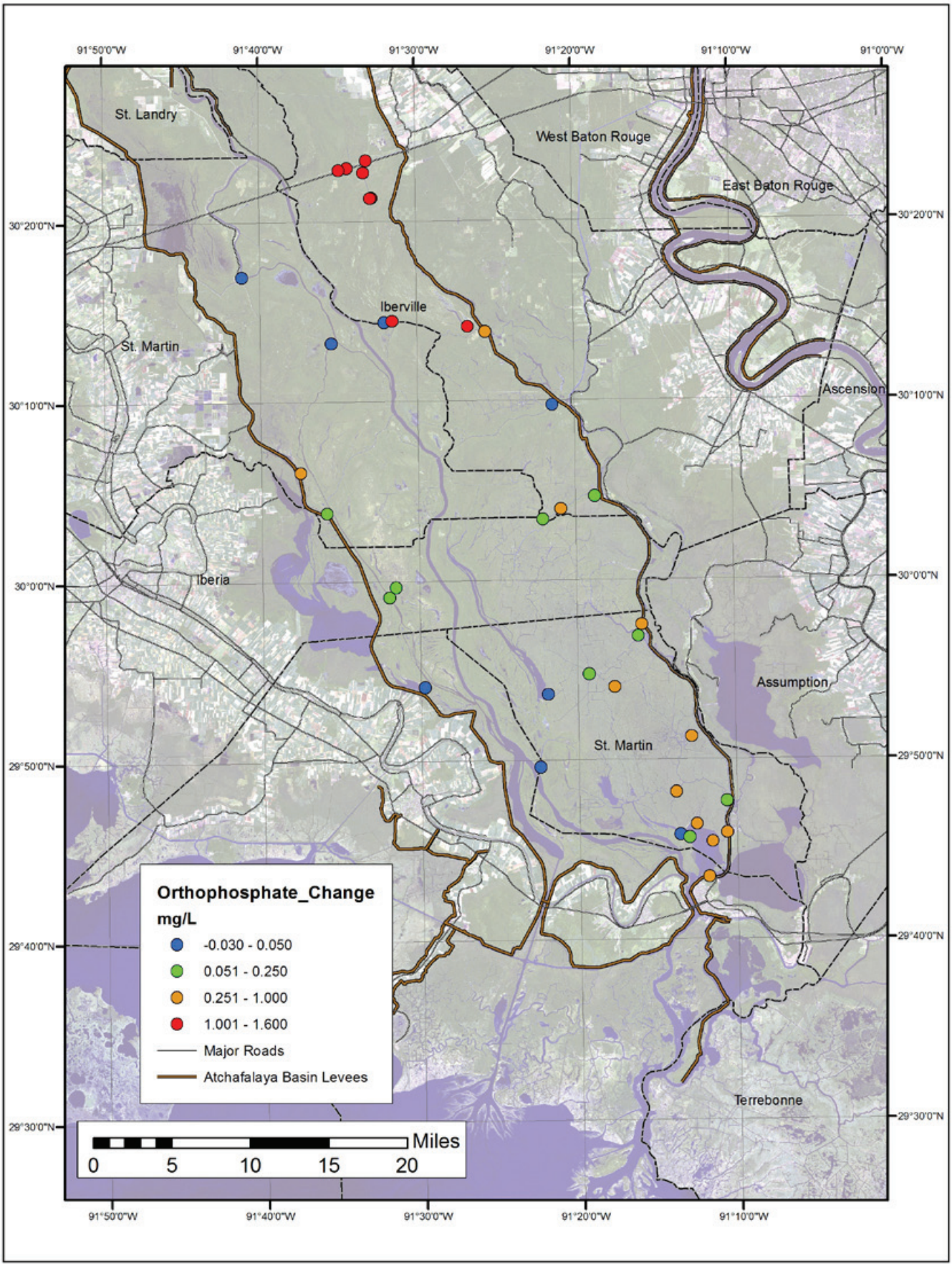


*Figure 54. Change of orthophosphate concentration between May 26 and July 7, 2011.*

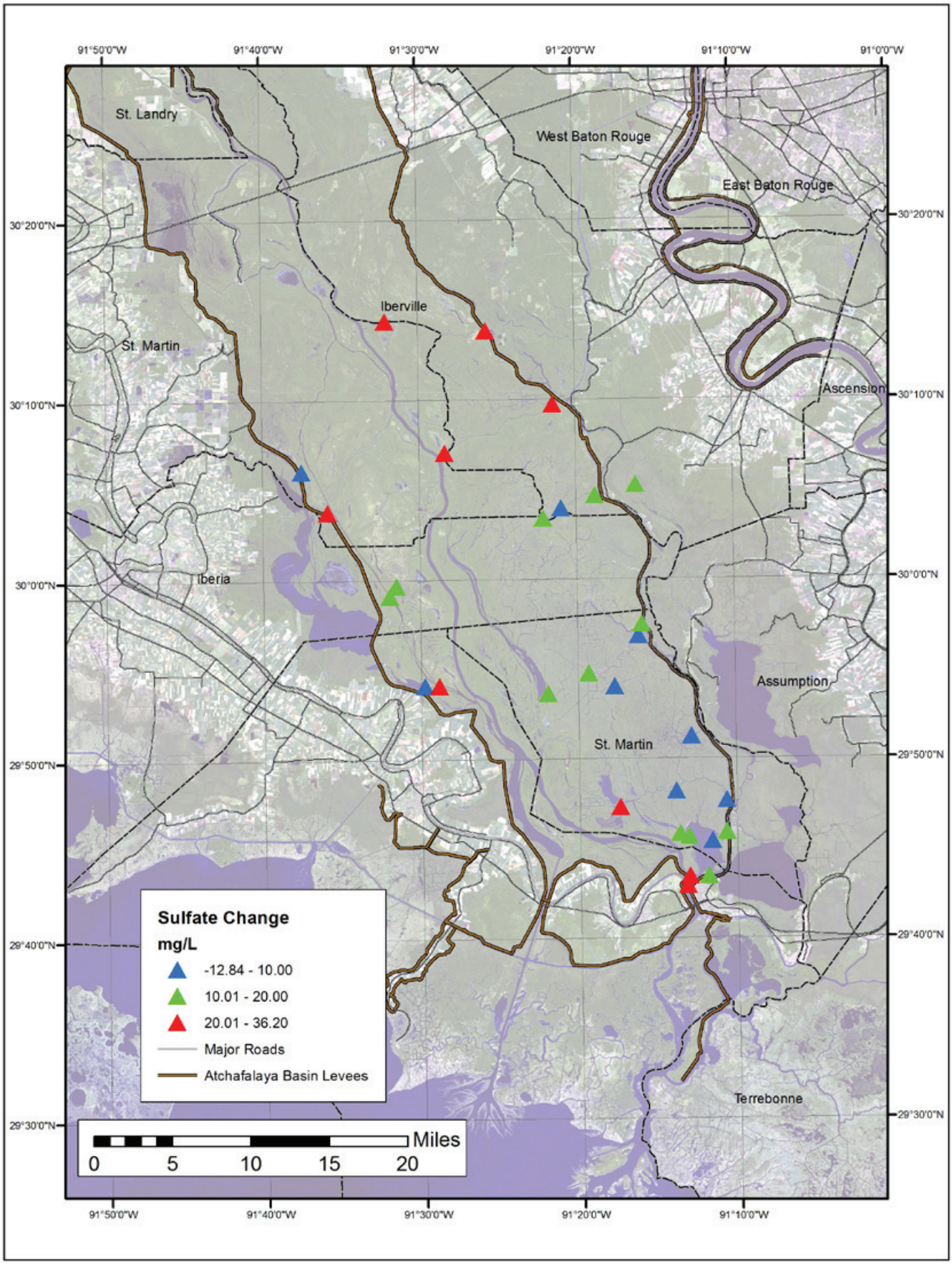


*Figure 55. Change of sulfate concentration between May 19 and July 21, 2011.*

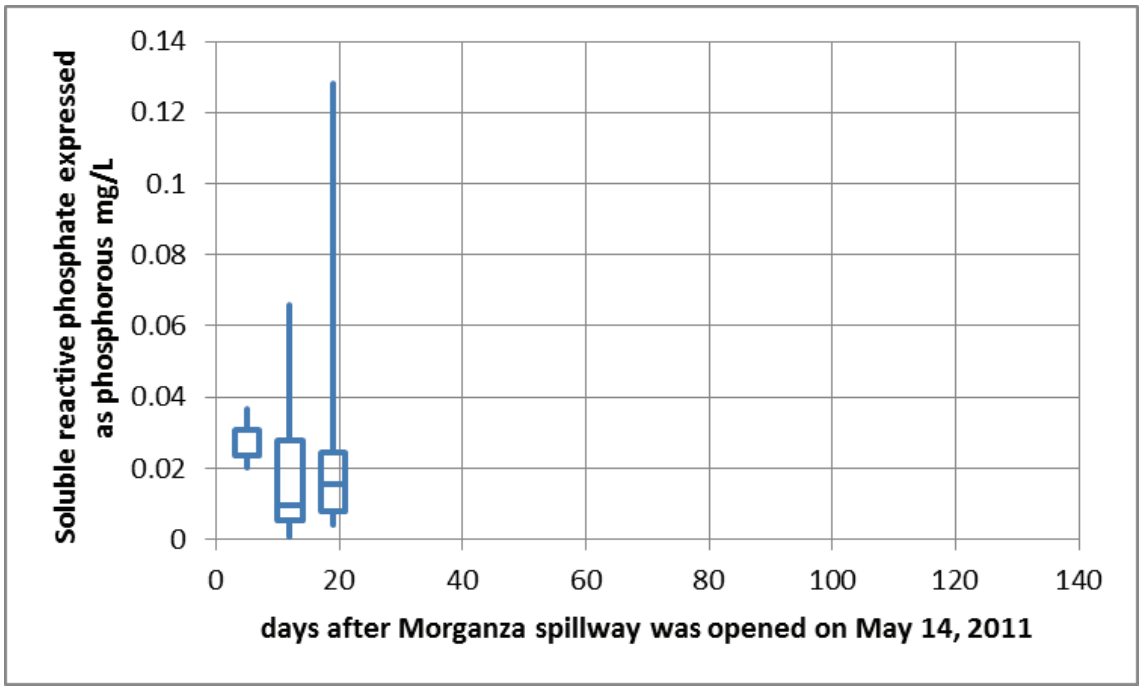


*Figure 56. Concentration of SRP expressed as phosporus for May 19 through June 2, 2011. From left to right boxes represent samples collected on May 19, 26; and June 2, 2011.*

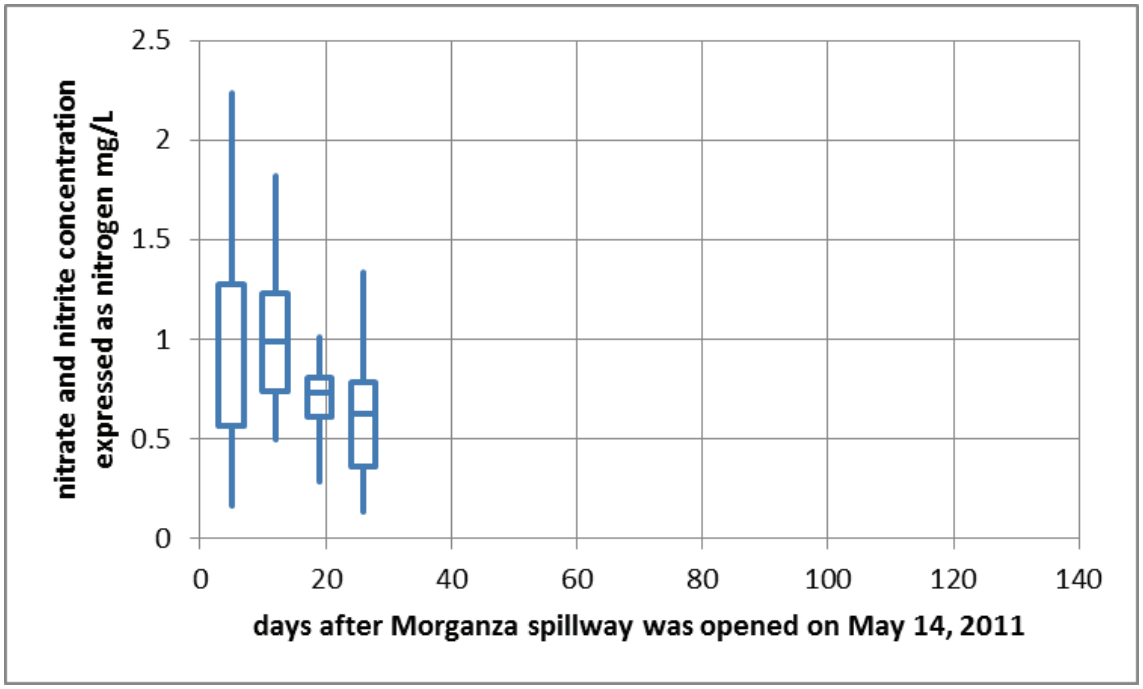


*Figure 57. Concentration of $NO_2$+$NO_3$-N for May 19 through June 9, 2011. From left to right boxes represent samples collected on May 19, 26; and June 2, and 9, 2011.*

tion and precipitation history of natural waters causes natural variations in the concentrations of these isotopes. The objectives in this work were to use stable isotopes to trace the mixing of Mississippi River water with pre-existing water in the Atchafalaya Basin. Dr Keim's laboratory analyzed water samples for stable isotope using the following methodology: Water samples were collected approximately six inches below the water surface and stored in 20 ml glass scintillation vials with zero head space. Because no air is present in the sealed sample, fractionation of the liquid sample is prevented. Further, caps were kept on the sample bottles until the target depth was reached and then each sample was sealed while still at depth to ensure consistency in collected waters. Samples were returned to the lab and stored in the dark while awaiting analysis.

Stable isotope analysis for $^{18}O$ and Deuterium was conducted using an LGR (Los Gatos Research) liquid water isotope analyzer with autosampler attachement (see LGR 2008 for details). A small amount of each sample was filtered using a 0.45 micron syringe, and approximately 1 ml was loaded per sample into standard autosampler vials with silicon septa. Six replicate measurements were performed for each sample, and the reported isotopic ratios from absorption spectra were used to calculate values of $\delta^{18}O$ and $\delta^{2}H$ based on known laboratory standards, which are measured in line with the field samples. The first two measurements for each sample are ignored and reported values are calculated as an average of the last four measurements for each sample, thus eliminating any cross-sample contamination.

***Virginia Polytechnic Institute and State University***

Dr. Scott Durelle of the Department of Biological Systems Engineering at Virginia Polytechnic Institute and State University (VT) performed deuterium (2H) and oxygen (18O-16O) isotope analyses. In addition, he also tested some samples collected in the Basin for non-purgeable organic carbon (NPOC), total dissolved nitrogen (TDN), ammonia, nitrate, phosphate and sulfate analyses (Appendix D). Isotope analyses were performed on VT Hydroecology Lab's Picarro Isotope Analyzer using the cavity ring down mass spectrometry method. NPOC and TDN analyses were performed on filtered samples (0.45 $\mu$L) using VT Hydroecology Lab's Shimadzu TOC-V CPH which uses high temperature oxidative combustion infrared analysis and chemiluminescence methods. Dissolved nutrients analyses were performed on filtered samples (0.45 $\mu$L) using VT Hydroecology Lab's SEAL Analytical AA3 which uses a segmented flow analyzer. Other anions analyses were performed on filtered samples (0.45 $\mu$L) using VT Hydroecology Lab's Dionex ion chromatograph ICS 3000.

***Tulane University***

Dr. Alex Kohler of the Department of Earth and Environmental Sciences at Tulane University performed TSS analyses on samples collected during the synoptic surveys done by the USGS in the eastern portion of the Atchafalaya Basin (Appendix B).

***U.S. Geological Survey***

The USGS as part of their National Stream Quality Accounting Network (NASQUAN) program analyzed water samples collected at six locations within and at the edge of the Basin for dissolved nitrite plus nitrate, total organic nitrogen plus ammonia nitrogen [total Kjeldahl nitrogen (TKN)], dissolved ammonia, total phosphorus, dissolved orthophosphate, and dissolved silica). In addition the program also analyzed samples for other anions, cations, metals, pesticides and organic compounds. Selected NASQUAN data is presented in Appendix D. Other analyzes are available on the USGS NASQUAN website.

## Summary of Water Level and Discharge Measurements

### Water Level Measurements

***U.S. Geological Survey***

The USGS, in collaboration with LSU and the USACE installed 96 pressure transducers within the Basin (Figure 58). In addition, the USGS has 15 gaging stations within the basin and an additional 13 in collaboration with the USACE within the Basin (Figure 59 and Appendix E). Information from several pressure transducers was not available from the USGS at the time this report was prepared. Additional data may be contained in the database if made available by the USGS prior to the time the database CD is prepared.

***Army Corps of Engineers***

The U.S. Army Corps of Engineers operates 27 stage gaging stations in the Basin and an additional; 13 stations in collaboration with the USGS (Figure 59 and Appendix E).

***National Audubon Society***

The National Audubon Society has nine sites equipped with water quality sensors and/or acoustic Doppler current profilers. The hourly data is not included in the Appendices, but is available in the database.

### Discharge Measurement

***U.S. Geological Survey***

The USGS operates 15 gaging stations within the basin, and an additional 13 in collaboration with the USACE within the Basin (Figure 59). Discharge is measured at 5 of the gaging stations.

***U.S. Army Corps of Engineers***

The USACE does not measure discharge at any of its 31 stage gaging stations (Appendix D), with the exception of the Simmesport station monitored in collaboration with the USGS.

## Summary of Aquatic Life Sampling (fish kill records, electro-fishing results)

Mike Walker (LDWF) on July 11, 2011 reported a fish kill in Henderson Lake. The kill included hundreds of thousands of threadfin shad, a few thousand freshwater drum, and hundreds to maybe thousands of largemouth bass. In addition, smaller numbers of crappie, bluegill and other species were killed. The fish were observed first in the southern part of the lake at various boat landings. A fish kill involving thousands of fish was reported for drain that runs into the river below Butte La Rose. In addition, there was a report of thousands of fish killed in the Cow Island Lake area (Mike Walker, personal communication, 2011).

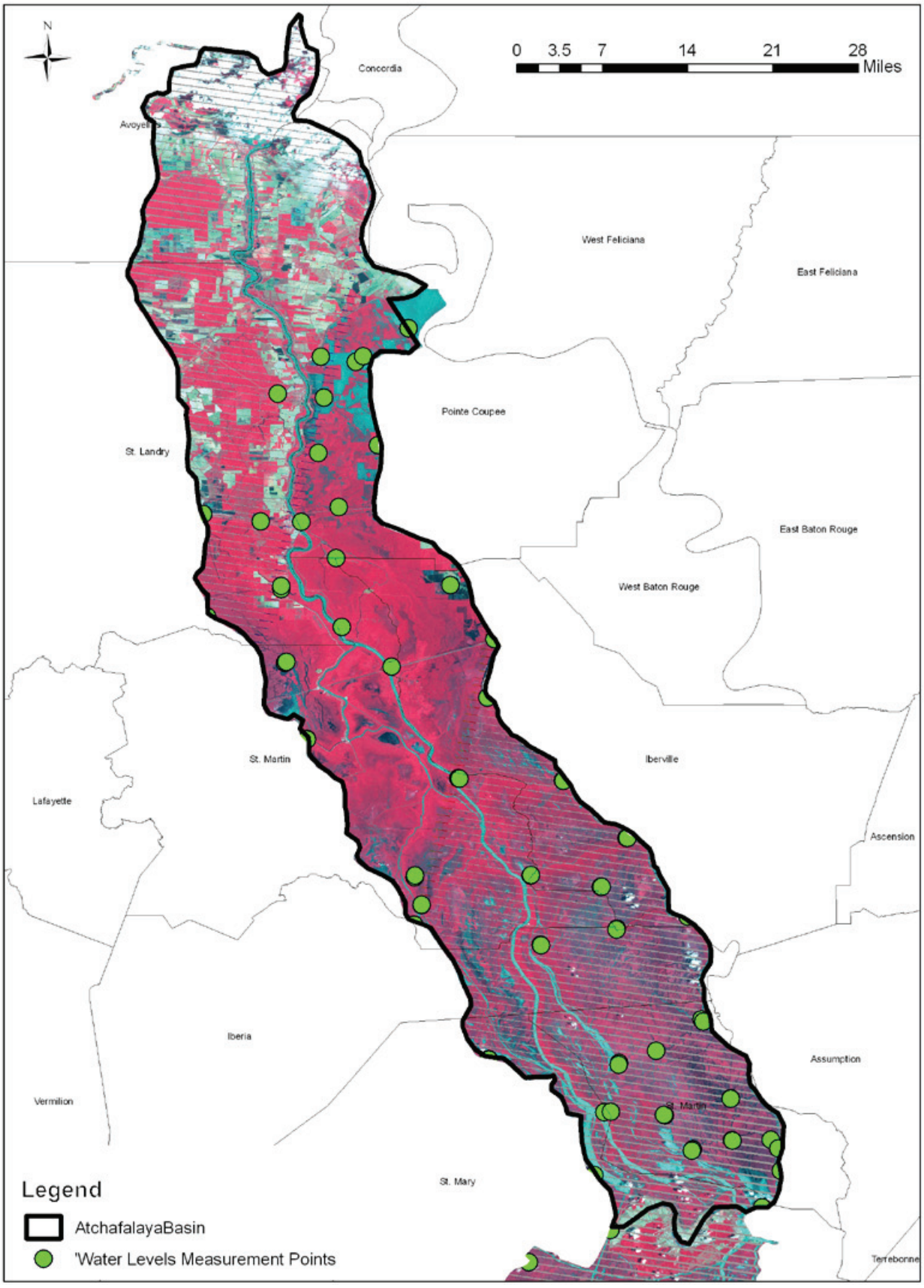


*Figure 58. Location map of temporary water level monitoring stations within the Basin (the background satellite imagery is from the May 18th Landsat7.*

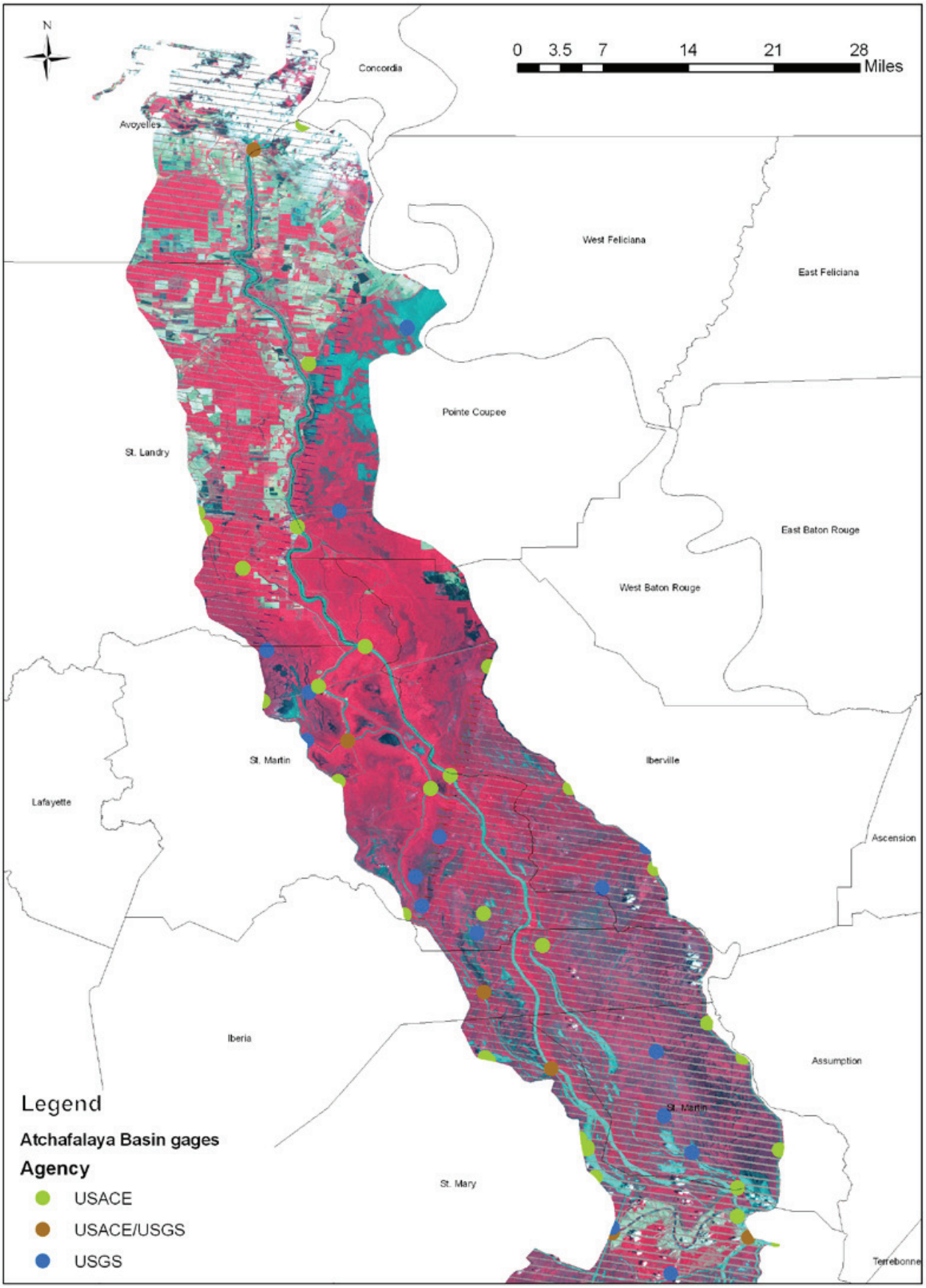


*Figure 59. Location map of the gaging stations within the Atchafalaya Basin (the background satellite imagery is from the May 18th Landsat7).*

## Data Archival

The scientific and geographic data presented in this report are included on a compact disk in the form of a Microsoft Excel and Microsoft Access databases, and geographic information system (GIS) shapefiles. In addition, to this data, data collected at a frequency greater than daily and data that became available after this report was finalized, but before the database was completed was also included on the CD. The database was a collaborative effort by LDNR, LGS, LSU and VT.

## Summary

As indicated earlier this report documents the impact of the 2011 Mississippi River flood event and associated diversions onto the Atchafalaya Basin of Louisiana (Figure 1). It is an archive of the information collected and made available to the authors and collaborators during the preparation of this report. The number of analyses collected is summarized on Table 15.

**Table 15. Summary of Analytical Data Collected**

| Number of | Total | USACE | USFWS | USGS | USGS-NASQUAN | DEQ | DHH | DWF | LSU-Chem-Cook | LSU-RNR-Keim | LSU-RNR-Kelso | LSU-OCS-White | LSU-LGS | Audubon | VT-Durelle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling sites | 298 | | 11 | 127 | 6 | 1 | 5 | 27 | | | 113 | | | 8 | |
| Gaging sites | 179 | 49 | | 124 | | | | | | | | | | 6 | |
| Field parameter measurements | 1464 | | 100 | 351 | 76 | 4 | | 294 | | | 639 | | | | |
| Nutrients analyses | 1154 | | | | 76 | 4 | | | | | | 486 | 469 | | 119 |
| Cations analyses | 668 | | | | 76 | 4 | | | | | | | 469 | | 119 |
| Isotope analyses | 560 | | | | | | | | | 402 | | | | | 158 |
| VOC analyses | 9 | | | | | 4 | 5 | | | | | | | | |
| Other analyses | 128 | | | | 76 | 4 | | | | | | | | | 48 |
| TSS analyses | 297 | | | 297 | | | | | | | | | | | |
| Fluorescence analyses | 596 | | | | | | | | 144 | | | | 452 | | |
| Synoptic measurements | 333 | | | 333 | | | | | | | | | | | |

Although many aspects of the economic impact of the flood on the Basin cannot be estimated due to the lack of available information, using the data collected from various agencies, parishes and individuals (Table 16), the known impact can be estimated at over $56,000,000.

**Table 16. Summary of Economic Impact Data Collected**

| Economic Sector | Agency/Stakeholder | Impact to | Economic Impact |
|---|---|---|---|
| Agriculture | LSU-Ag | Crop and livestock | $44,969,387 |
| Wildlife | LDWF | Black bear and Deer | $870,000 |
| Fisheries | | | Unknown |
| Infrastructure | LDWF | Repairs at WMAs | $93,200 |
| Infrastructure | LDOTD | Response and repairs | $3,402,945 |
| Infrastructure | St Mary Parish | Repair boat launches | $3,000,000 |
| Infrastructure | Private | Repair boat launches | $583,715 |
| Infrastructure | Private | Homes and camps | Unknown |
| Crude Oil Production | Private | Shut-in production | $2,448,072 |
| Natural Gas Production | Private | Shut-in production | $612,071 |
| Tourism | USACE | WMAs | $384,000 |
| Industrial Production | | | Unknown |
| Navigation | | | Unknown |
| | | **Total** | **$56,363,390** |

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| Agency | Individuals |
|---|---|
| Atchafalaya Basin Levee District | |
| Iberville Parish | |
| Iberia Parish | |
| LA Department of Agriculture and Forestry | |
| LA Department of Transportation and Development | |
| LA Department of Environmental Quality | |
| LA Department of Health and Hospitals | |
| Louisiana Department of Wildlife and Fisheries | Mike Walker |
| Louisiana State University | Prof. Richard Keim, Brandon Edwards, Prof. John White, Prof Robert Cook |
| The National Audubon Society | Paul Kemp |
| St. Landry Parish | |
| St. Martin Parish | |
| St. Mary Parish | |
| Tulane University | |
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| U.S. National Park Service | |
| U.S. Geological Survey | Dan Kroes, Richard Day, Ben McGee |
| Virginia Tech University | Prof. Scott Durelle, Nathan Jones |

# Appendix A
# Data Collecting Locations

# Table A1. List of Gaging Stations

| Site # | Agency | Subagency | USGS # | USACE # | Audubon # | Description | Lat | Long |
|---|---|---|---|---|---|---|---|---|
| | USACE | | | 76560 | | Intracoastal Waterway At Wax Lake West Control Structure (LA) | 29.0714 | -91.4494 |
| | USGS | | 7381654 | | | Atchafalaya Bay at Eugene Island | 29.3791 | -91.3818 |
| | USACE | | | 88600 | | Atchafalaya Bay At Eugene Island (LA) | 29.3792 | -91.3817 |
| D04 | USGS | Ruston | | | | | 29.4301 | -90.7005 |
| | USACE | | | 88550 | | Atchafalaya Bay Near Eugene Island (LA) | 29.4508 | -91.3411 |
| | USACE | | | 3850 | | Round Bayou At Deer Island (LA) | 29.4744 | -91.2628 |
| D05 | USGS | Ruston | | | | | 29.4817 | -90.5549 |
| | USACE | | | 3830 | | Wax Lake Outlet Vicinity At Belle Isle, LA | 29.5297 | -91.3942 |
| | USGS | | 73816501 | | | Avoca Island Cutoff south of Morgan City, La. | 29.5333 | -91.2494 |
| | USGS | | 73815925 | | | Crewboat Channel at Wax Lake Outlet nr Calumet, LA | 29.5400 | -91.4356 |
| D06 | USGS | Ruston | | | | | 29.5435 | -90.4043 |
| | USACE | | | 3820 | | Lower Atchafalaya River Below Sweet Bay Lake (LA) | 29.5517 | -91.2447 |
| D03 | USGS | Ruston | | | | | 29.5608 | -90.7915 |
| D03B | USGS | Ruston | | | | | 29.5608 | -90.7915 |
| | USACE | | | 88800 | | East Cote Blanche Bay At Luke's Landing, LA | 29.5967 | -91.5431 |
| | USGS | | 7385835 | | | (COE) East Cote Blanche Bay at Lukes Landing, LA | 29.5969 | -91.5432 |
| D02 | USGS | Ruston | | | | | 29.6272 | -90.9135 |
| | USGS | | 73816202 | | | GIWW at mile 103 S of Morgan City, LA | 29.6494 | -91.3042 |
| C05 | USGS | Ruston | | | | | 29.6604 | -91.4720 |
| C03B | USGS | Ruston | | | | | 29.6712 | -91.1001 |
| C03 | USGS | Ruston | | | | | 29.6712 | -91.0999 |
| | USACE | | | 76360 | | Bayou Boeuf (IWW) At Bayou Boeuf Lock (LA) (East) | 29.6831 | -91.1736 |
| | USACE | | | 76400 | | Bayou Boeuf (IWW) At Bayou Boeuf Lock (LA) (West) | 29.6831 | -91.1761 |
| | USACE/USGS | | 7381600 | | | Lower Atchafalaya River at Morgan City, LA | 29.6928 | -91.2119 |
| D07 | USGS | Ruston | | | | | 29.6948 | -90.6332 |
| | USACE/USGS | | 7381590 | | | Wax Lake Outlet at Calumet, LA | 29.6980 | -91.3729 |
| E10 | USGS | Ruston | | | | | 29.6990 | -91.3750 |
| E11 | USGS | Ruston | | | | | 29.6990 | -91.3750 |
| | USGS | | 7385820 | | | Bayou Teche W of Calumet Flood Gate at Calumet, LA | 29.7041 | -91.3729 |
| | USGS | | 73815945 | | | Bayou Teche E of Calumet Flood Gate at Calumet, LA | 29.7044 | -91.3740 |
| D01 | USGS | Ruston | | | | | 29.7113 | -90.8600 |
| | USACE | | | 3765 | | Lower Atchafalaya River At Berwick Lock (LA) (East) | 29.7175 | -91.2244 |

| Site # | Agency | Subagency | USGS # | USACE # | Audubon # | Description | Lat | Long |
|---|---|---|---|---|---|---|---|---|
| | USGS | Baton Rouge | | | | baro sensor | 29.7254 | -91.1948 |
| K20B | USGS | Ruston | | | | | 29.7257 | -91.1947 |
| E08 | USGS | Ruston | | | | | 29.7400 | -91.4520 |
| **Site #** | **Agency** | **Subagency** | **USGS #** | **USACE #** | **Audubon #** | **Description** | **Lat** | **Long** |
| | USACE | | | 3750 | | Lower Atchafalaya River At Berwick Lock (LA) (West) | 29.7514 | -91.2247 |
| E07 | USGS | Ruston | | | | | 29.7540 | -91.4968 |
| | USACE | | | 3645 | | Six Mile Lake Near Verdunville, LA | 29.7636 | -91.3931 |
| C04 | USGS | Ruston | | | | | 29.7640 | -91.3941 |
| E06 | USGS | Ruston | | | | | 29.7695 | -91.1721 |
| E09 | USGS | Ruston | | | | | 29.7853 | -91.5230 |
| E09B | USGS | Ruston | | | | | 29.7861 | -91.5224 |
| K9 | USGS | Ruston | | | | | 29.7933 | -91.2782 |
| | USGS | | 294736091164200 | | | American Pass at Little Bayou Sorrel | 29.7933 | -91.2783 |
| | USGS | Baton Rouge | | | | litl byu sorrel | 29.7948 | -91.2772 |
| K14 | USGS | Ruston | | | | | 29.7955 | -91.1756 |
| | USACE | | | 49725 | | Little Bayou Sorrel At Jct. With GIWW (Morgan City - Port Allen) (LA) | 29.7964 | -91.1750 |
| | USACE | | | 3634 | | Six Mile Lake Downstream Of Control Structure (LA) | 29.7975 | -91.4028 |
| | USACE | | | 3632 | | Six Mile Lake Upstream Of Control Structure (LA) | 29.7992 | -91.4028 |
| K19 | USGS | Ruston | | | | | 29.8052 | -91.2299 |
| | USGS | Baton Rouge | | | | little byu sorrel at Big fork | 29.8056 | -91.2305 |
| | USGS | Baton Rouge | | | | Ltl byu sorrel at GIWW | 29.8062 | -91.1843 |
| | USACE | | | 3630 | | Six Mile Lake Above Control Structure (LA) | 29.8097 | -91.4119 |
| C02 | USGS | Ruston | | | | | 29.8151 | -91.1482 |
| C06 | USGS | Ruston | | | | | 29.8188 | -91.5456 |
| | USGS | Baton Rouge | | | | byu long N of duck lake | 29.8353 | -91.3102 |
| K8 | USGS | Ruston | | | | | 29.8356 | -91.3111 |
| | USGS | | 295011091184300 | | | Little Bayou Long North of Duck Lake | 29.8365 | -91.3119 |
| | USGS | Baton Rouge | | | | blue point chute | 29.8390 | -91.3820 |
| K21 | USGS | Ruston | | | | | 29.8393 | -91.3744 |
| K18 | USGS | Ruston | | | | | 29.8548 | -91.2317 |
| | USGS | Baton Rouge | | | | big fork byu | 29.8551 | -91.2317 |
| D08 | USGS | Ruston | | | | | 29.8581 | -91.0525 |
| | USACE/USGS | | 73815450 | | | Chicot Pass near Myette Point near Charenton, LA | 29.8927 | -91.4457 |
| K10 | USGS | Ruston | | | | | 29.8951 | -91.3651 |

| Site # | Agency | Subagency | USGS # | USACE # | Audubon # | Description | Lat | Long |
|---|---|---|---|---|---|---|---|---|
| | USGS | Baton Rouge | | | | S. end of East grand | 29.8973 | -91.3648 |
| E03 | USGS | Ruston | | | | | 29.9016 | -91.5198 |
| E03 | USGS | Ruston | | | | | 29.9016 | -91.5198 |
| E03B | USGS | Ruston | | | | | 29.9016 | -91.5198 |
| C07 | USGS | Ruston | | | | | 29.9019 | -91.5194 |
| | USACE | | | 3550 | | Grand Lake At Charenton Floodgate (LA) | 29.9022 | -91.5200 |
| **Site #** | **Agency** | **Subagency** | **USGS #** | **USACE #** | **Audubon #** | **Description** | **Lat** | **Long** |
| | USACE | | | 3555 | | Grand Lake At Charenton, LA | 29.9056 | -91.5239 |
| | USACE | | | 49690 | | Intracoastal Waterway Near Pierre Pass, LA | 29.9064 | -91.2178 |
| | USGS | | 7381454 | | | Belle River at Hwy 70 near Pierre Part, LA | 29.9091 | -91.2158 |
| K7 | USGS | Ruston | | | | | 29.9117 | -91.3206 |
| | USGS | Baton Rouge | | | | middle fork | 29.9118 | -91.3206 |
| | USGS | | 295447091191500 | | | Middle Fork Bayou Long at Bayou Long | 29.9131 | -91.3208 |
| | USACE | | | 49645 | | Old River (FWS) At Junction with GIWW (Morgan City - Port Allen) (LA) | 29.9464 | -91.2597 |
| K12 | USGS | Ruston | | | | | 29.9465 | -91.2648 |
| | USGS | Baton Rouge | | | | old river | 29.9490 | -91.2668 |
| E05 | USGS | Ruston | | | | | 29.9646 | -91.2102 |
| E05B | USGS | Ruston | | | | | 29.9646 | -91.2101 |
| | USACE/USGS | | 7381567 | | | Buffalo Cove at Round Island near Charenton, LA | 29.9835 | -91.5251 |
| C01 | USGS | Ruston | | | | | 30.0121 | -91.1180 |
| K11 | USGS | Ruston | | | | | 30.0375 | -91.4573 |
| | USGS | Baton Rouge | | | | keel boat | 30.0378 | -91.4579 |
| | USACE | | | 3615 | | Keelboat Pass Below Lake Chicot (LA) | 30.0386 | -91.4558 |
| | USGS | | 300312091320000 | | | Arm of Grand Lake near Crook Chene Cove | 30.0533 | -91.5333 |
| K6 | USGS | Ruston | | | | | 30.0558 | -91.3676 |
| | USGS | Baton Rouge | | | | cross byu | 30.0570 | -91.3672 |
| | USGS | Baton Rouge | | | | barosensor2 | 30.0616 | -91.6086 |
| K22B | USGS | Ruston | | | | | 30.0617 | -91.6084 |
| E04 | USGS | Ruston | | | | | 30.0716 | -91.2832 |
| | USACE | | | 49195 | | WABPL (FWS) At Lower Grand Bayou (LA) | 30.0750 | -91.6203 |
| | USACE | | | 49197 | | Arm Of Grand Lake Near CrookChene Cove (LA) | 30.0764 | -91.5258 |
| | USGS | Baton Rouge | | | | darby | 30.0852 | -91.5994 |
| K3 | USGS | Ruston | | | | | 30.0852 | -91.5992 |

| Site # | Agency | Subagency | USGS # | USACE # | Audubon # | Description | Lat | Long |
|---|---|---|---|---|---|---|---|---|
| | USGS | | 300507091355600 | | | Bayou Darby near Lake Fausse Point Cut | 30.0853 | -91.5989 |
| K5 | USGS | Ruston | | | | | 30.1065 | -91.3854 |
| | USGS | | 73815963 | | | Murphy Lake near Bayou Sorrel, LA | 30.1066 | -91.3854 |
| | USGS | Baton Rouge | | | | murphy | 30.1067 | -91.3861 |
| | USGS | Baton Rouge | | | | beau | 30.1180 | -91.6075 |
| K4 | USGS | Ruston | | | | | 30.1202 | -91.6069 |
| | USGS | Baton Rouge | | | | byu sorrel | 30.1202 | -91.4697 |
| | USGS | | 300713091362400 | | | Beau Bayou N. of Bayou Darby near Loreauville, LA | 30.1203 | -91.6067 |
| K13 | USGS | Ruston | | | | | 30.1207 | -91.4692 |
| | USACE | | | 49630 | | EABPL Borrow Pit (FWS) At Bayou Sorrel Lock (LA) | 30.1300 | -91.3225 |
| **Site #** | **Agency** | **Subagency** | **USGS #** | **USACE #** | **Audubon #** | **Description** | **Lat** | **Long** |
| | USGS | | 7381450 | | | Lower Grand River at Bayou Sorrel, LA | 30.1555 | -91.3318 |
| | USGS | Baton Rouge | | | | giww | 30.1647 | -91.3559 |
| K15 | USGS | Ruston | | | | | 30.1648 | -91.3549 |
| | USGS | | 301002091344100 | | | B Larose S of Pipeline Canal near Loreauville, LA | 30.1672 | -91.5781 |
| | USACE | | | 3210 | | Bayou La Rompe At Lake Long (LA) | 30.2247 | -91.5883 |
| | USACE | | | 49570 | | Upper Grand River (FWS) At Dike (LA) | 30.2258 | -91.4233 |
| K16 | USGS | Ruston | | | | | 30.2326 | -91.4310 |
| | USGS | Baton Rouge | | | | GIWW @ upper grand | 30.2329 | -91.4315 |
| | USACE | | | 49150 | | WABPL Borrow Pit (FWS) At Bayou Messier (LA) | 30.2333 | -91.6986 |
| K17 | USGS | Ruston | | | | | 30.2354 | -91.5541 |
| | USGS | Baton Rouge | | | | upper grand | 30.2359 | -91.5556 |
| | USACE | | | 3315 | | Blind Tensas Cut Below Upper Grand River (LA) | 30.2406 | -91.5650 |
| | USACE/USGS | | 7381515 | | | Atchafalaya River at Butte La Rose, LA | 30.2816 | -91.6868 |
| K2 | USGS | Ruston | | | | | 30.2818 | -91.7357 |
| | USGS | | 301655091440800 | | | Pontoon Bridge Canal near Butte Larose, LA | 30.2819 | -91.7356 |
| | USGS | Baton Rouge | | | | pontoon bridge | 30.2822 | -91.7357 |
| | USACE | | | 49120 | | WABPL (FWS) At Cleon, LA | 30.3283 | -91.7875 |
| B09 | USGS | Ruston | | | | | 30.3318 | -91.5211 |
| | USGS | | 302020091435700 | | | Lake Pelba at I-10 near Henderson, LA | 30.3389 | -91.7325 |
| | USACE | | | 3090 | | Atchafalaya River At Atchafalaya, LA | 30.3461 | -91.7217 |
| B06 | USGS | Ruston | | | | | 30.3686 | -91.6351 |
| | USACE | | | 49542 | | EABPL Borrow Pit (FWS) Near Ramah, LA (Below I-10) | 30.3694 | -91.5194 |
| | USGS | Baton Rouge | | | | bayou fuselier | 30.3729 | -91.7616 |

| Site # | Agency | Subagency | USGS # | USACE # | Audubon # | Description | Lat | Long |
|---|---|---|---|---|---|---|---|---|
| K1 | USGS | Ruston | | | | | 30.3741 | -91.7598 |
| | USGS | | 302320091465900 | | | Bayou Fusilier of the Swamps near Henderson, LA | 30.3889 | -91.7831 |
| | USACE | | | 3240 | | Whiskey Bay Pilot Channel Below Head (LA) | 30.3931 | -91.6664 |
| B07 | USGS | Ruston | | | | | 30.4011 | -91.5129 |
| B05 | USGS | Ruston | | | | | 30.4156 | -91.6944 |
| B01 | USGS | Ruston | | | | | 30.4279 | -91.8542 |
| E02 | USGS | Ruston | | | | | 30.4608 | -91.7663 |
| B02 | USGS | Ruston | | | | | 30.4638 | -91.7663 |
| E02B | USGS | Ruston | | | | | 30.4643 | -91.7663 |
| B08 | USGS | Ruston | | | | | 30.4656 | -91.5653 |
| | USACE | | | 49255 | | Bayou Fordoche Near Krotz Springs, LA | 30.4861 | -91.8111 |
| B04 | USGS | Ruston | | | | | 30.4973 | -91.7010 |
| | USACE | | | 46750 | | Bayou Courtableau Outlet Channel Near Southwest Wing Wall (LA) | 30.5328 | -91.8556 |
| **Site #** | **Agency** | **Subagency** | **USGS #** | **USACE #** | **Audubon #** | **Description** | **Lat** | **Long** |
| | USACE | | | 3075 | | Atchafalaya River At Krotz Springs, LA | 30.5353 | -91.7467 |
| | USACE | | | 46375 | | WABPL Borrow Pit (FWS) Near Courtableau, LA | 30.5353 | -91.8564 |
| B03B | USGS | Ruston | | | | | 30.5407 | -91.7424 |
| A09 | USGS | Ruston | | | | | 30.5409 | -91.7904 |
| E01 | USGS | Ruston | | | | | 30.5496 | -91.8590 |
| | USACE | | | 46300 | | Big Darbonne (FWS) At Courtableau, LA | 30.5514 | -91.8647 |
| | USGS | | 303314091414900 | | | Morganza Floodway at Hwy 190 Temporary Gage | 30.5539 | -91.6969 |
| A07 | USGS | Ruston | | | | | 30.5581 | -91.6978 |
| A05 | USGS | Ruston | | | | | 30.6221 | -91.7220 |
| A06 | USGS | Ruston | | | | | 30.6315 | -91.6515 |
| A04 | USGS | Ruston | | | | | 30.6884 | -91.7157 |
| A08 | USGS | Ruston | | | | | 30.6928 | -91.7702 |
| | USACE | | | 49400 | | Alabama Bayou (FWS) At Sherburne, lA | 30.7111 | -91.5156 |
| | USACE | | | 43500 | | Bayou Latenache Below Pointe Coupe Drainage Structure | 30.7286 | -91.7331 |
| | USACE | | | 40900 | | Bayou Latenache Above Pointe Coupe Drainage Structure | 30.7289 | -91.7333 |
| A01 | USGS | Ruston | | | | | 30.7308 | -91.6776 |
| A03 | USGS | Ruston | | | | | 30.7369 | -91.7190 |
| A02 | USGS | Ruston | | | | | 30.7376 | -91.6690 |
| A10B | USGS | Ruston | | | | | 30.7705 | -91.6151 |
| | USGS | | 304616091365800 | | | Tail Bay at Morganza Floodway Temporary Gage | 30.7711 | -91.6161 |

| Site # | Agency | Subagency | USGS # | USACE # | Audubon # | Description | Lat | Long |
|---|---|---|---|---|---|---|---|---|
| | USGS | | 304619091365900 | | | Fore Bay at Morganza Floodway Temporary Gage | 30.7720 | -91.6163 |
| | USACE/USGS | | 7381490 | | | Atchafalaya River at Simmesport, LA | 30.9825 | -91.7983 |
| | USGS | | 7383510 | | | Bayou Des Glaises Div Ch nr Moreauville, LA. | 31.0002 | -91.9668 |
| | USGS | | 7382000 | | | Bayou Cocodrie near Clearwater, LA | 31.0003 | -92.3803 |
| | USACE | | | 3015 | | Atchafalaya River At Barbre Landing, LA | 31.0133 | -91.7403 |
| | USGS | | 7383500 | | | Bayou Des Glaises Diversion Ch. at Moreauville, LA | 31.0332 | -91.9826 |
| | USGS | | 7381482 | | | Old River Outflow Channel below Hydropower Channel | 31.0668 | -91.6483 |
| | USACE | | | 4750 | | Black River at Acme, LA | 31.2672 | -91.1656 |
| | USACE | | | 3060 | | Atchafalaya River At Melville, LA | 31.6906 | -91.7361 |
| | Audubon | | | | NAS1H | | 29.3846 | -91.3743 |
| | Audubon | | | | NAS2H | | 29.5759 | -91.5398 |
| | Audubon | | | | NAS3H | | 29.6591 | -91.6575 |
| | Audubon | | | | NAS4H | | 29.7041 | -92.0798 |
| | Audubon | | | | NAS7H | | 29.9744 | -91.3164 |
| | Audubon | | | | NAS9H | | 30.1502 | -91.3835 |
| | USGS | 7381530 | | | | Morganza Spillway at Hwy 190 near Lottie, LA | 30.5044 | -91.6975 |

## Table A2. List of Sampling Locations

| Site # | Agency | Subagency | USGS # | DWF # | USFWS # | LSU # | DEQ # | Audubon | Scotty's # | Description | Lat | Long | Fld Param. | Nutrient | Isotope | TSS | Synoptic | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | USGS | Baton Rouge | 1FLOOD | | | | | | | Sorrel @ Atch | 30.1185 | -91.4726 | X | X | X | | | |
| 2 | USGS | Baton Rouge | B2 | | | | | | B | Sorrel W of oil field drain | 30.1629 | -91.3573 | X | X | X | | | |
| 3 | USGS | Baton Rouge | 3FLOOD | | | | | | | Pigeon near GIWW | 30.0782 | -91.3133 | X | X | X | | | |
| 4 | USGS | Baton Rouge | 4FLOOD | | | | | | | Pigeon near Big Pigeon | 30.0663 | -91.3494 | X | X | X | | | |
| 5 | USGS | Baton Rouge | C5FLOOD | | | | | | C | Cross Bayou near ltl pigeon | 30.0573 | -91.3684 | X | X | X | | | |
| 6 | LDWF | District 9 | | SITE 6 | | | | | | BAYOU POSTILLION | 30.0088 | -91.2701 | X | X | X | | | X |
| 7 | LDWF | District 9 | | SITE 7 | | | | | D | OLD RIVER AT GIWW | 29.9481 | -91.2691 | X | X | X | | | X |
| 8 | LDWF | District 9 | | SITE 8 | | | | | | GIWW N of OLD RIVER | 29.9589 | -91.2651 | X | X | X | | | X |
| 9 | LDWF | District 9 | | SITE 9 | | | | | | STREAM | 29.9011 | -91.2948 | X | X | X | | | X |
| 10 | LDWF | District 9 | | SITE 10 | | | | | E | STREAM | 29.9134 | -91.3220 | X | X | X | | | X |
| 11 | LDWF | District 9 | | SITE 11 | | | | | F | STREAM | 29.8949 | -91.3657 | X | X | X | | | X |
| 12 | LDWF | District 9 | | SITE 12 | | | | | G | PIPELINE | 29.8547 | -91.2142 | X | X | X | | | X |
| 13 | LDWF | District 9 | | SITE 13 | | | | | | LITTLE BAYOU SORREL @ GIWW | 29.7951 | -91.1775 | X | X | X | | | X |
| 14 | LDWF | District 9 | | SITE 14 | | | | | | LITTLE BAYOU SORREL @ JESSIE | 29.8037 | -91.2308 | X | X | X | | | X |
| 15 | LDWF | District 9 | | SITE 15 | | | | | I | DOG ISLAND PASS | 29.7643 | -91.2269 | X | X | X | | | X |
| 17 | LDWF | District 9 | | SITE 17 | | | | | | FLAT LAKE WEST SIDE | 29.7614 | -91.2175 | X | X | X | | | X |
| 18 | LDWF | District 9 | | SITE 18 | | | | | H | FLAT LAKE @ BEAR BAYOU | 29.7736 | -91.2096 | X | X | X | | | X |
| 19 | LDWF | District 9 | | SITE 19 | | | | | | FLAT LAKE EAST SIDE | 29.7573 | -91.1932 | X | X | X | | | X |
| 20 | LDWF | District 9 | | SITE 20 | | | | | | INTRACOASTAL @ DOIRONS LANDING | 29.7657 | -91.1775 | X | X | X | | | X |
| 21 | LDWF | District 9 | | SITE 21 | | | | | | MAIN CHANNEL BEFORE GIWW | 29.7248 | -91.2173 | X | X | X | | | X |
| 22 | LDWF | District 9 | | SITE 22 | | | | | | GIWW AT FLAT LAKE | 29.7251 | -91.1971 | X | X | X | | | X |
| 23 | LDWF | District 9 | | SITE 23 | | | | | | MAIN CHANNEL + GIWW | 29.7161 | -91.2197 | X | X | X | | | X |
| 24 | LDWF | District 6 | | Site 24 | | | | | | Lake Rond | 30.2215 | -91.5913 | | X | X | | | X |
| 25 | LDWF | District 6 | | Site 25 | | | | | | Bayou Crook Chene | 30.1409 | -91.5388 | | X | X | | | X |
| 26 | USGS | Lafayette | 26 | | | | | | | Lake Rond | 30.0640 | -91.5976 | | | X | | | |
| 27 | USGS | Lafayette | 27 | | | | | | | Bayou Benoit Launch | 30.1019 | -91.6253 | | | X | | | |
| 28 | USGS | Lafayette | 28 | | | | | | | Buffalo Cove | 29.9951 | -91.5252 | | | X | | | |
| 29 | USGS | Lafayette | 29 | | | | | | | Lake Fausse Pointe Cut | 29.9857 | -91.5326 | | | X | | | |
| 30 | USGS | Lafayette | 30 | | | | | | | Grand Lake | 29.9026 | -91.4962 | | | X | | | |
| 31 | USGS | Lafayette | 31 | | | | | | | Grand Lake | 29.9017 | -91.4844 | | | X | | | |
| 32 | | | | | | | | | A | Ramah boat launch | 30.4000 | -91.5124 | X | X | X | | | |

| Site # | Agency | Subagency | USGS # | DWF # | USFWS # | LSU # | DEQ # | Audubon | Scotty's # | Description | Lat | Long | Fld Param. | Nutrient | Isotope | TSS | Synoptic | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33 | USGS | Baton Rouge | 33Flood | | | | | | | Grand River@ work canal | 30.2406 | -91.5347 | X | X | X | | | |
| 34 | USGS | Baton Rouge | 34FLOOD | | | | | | | GIWW @ grand river | 30.2314 | -91.4276 | X | X | X | | | |
| 35 | LDWF | District 6 | | Site 35 | | | | | | River | 30.2831 | -91.6863 | | X | X | | | |
| 36 | LDWF | District 9 | | SITE 36 | | | | | | BAYOU BOUTTE @ LITTLE BAYOU SORREL | 29.7893 | -91.2903 | X | | X | | | X |
| 37 | USGS | Lafayette | | | | | | | | Blue Point Chute | 29.8278 | -91.3743 | | | X | | | |
| | LDWF | District 9 | | ChemLSU1 | | | | | | Middle of Flat Lake | 29.7596 | -91.2075 | X | | | | | X |
| | LSU | | | | | HN1 | | | | Henderson Lake | 30.4107 | -91.7861 | X | | | | | |
| | LSU | | | | | HN2 | | | | Henderson Lake | 30.3746 | -91.7314 | X | | | | | |
| | LSU | | | | | HN3 | | | | Henderson Lake | 30.4086 | -91.7494 | X | | | | | |
| | LSU | | | | | HN4 | | | | Henderson Lake | 30.4548 | -91.7536 | X | | | | | |
| | LSU | | | | | HN5 | | | | Henderson Lake | 30.5330 | -91.8546 | X | | | | | |
| | LSU | | | | | HN7 | | | | Henderson Lake | 30.5150 | -91.7983 | X | | | | | |
| | LSU | | | | | HN8 | | | | Henderson Lake | 30.5278 | -91.8084 | X | | | | | |
| | LSU | | | | | HN9 | | | | Henderson Lake | 30.5298 | -91.8351 | X | | | | | |
| | LSU | | | | | HN10 | | | | Henderson Lake | 30.5403 | -91.8308 | X | | | | | |
| | LSU | | | | | HN11 | | | | Henderson Lake | 30.5359 | -91.8559 | X | | | | | |
| | LSU | | | | | HN12 | | | | Henderson Lake | 30.5193 | -91.8385 | X | | | | | |
| | LSU | | | | | HN13 | | | | Henderson Lake | 30.5066 | -91.8426 | X | | | | | |
| | LSU | | | | | HN14 | | | | Henderson Lake | 30.5003 | -91.8273 | X | | | | | |
| | LSU | | | | | HN15 | | | | Henderson Lake | 30.4762 | -91.8406 | X | | | | | |
| | LSU | | | | | HN16 | | | | Henderson Lake | 30.4555 | -91.8277 | X | | | | | |
| | LSU | | | | | HN17 | | | | Henderson Lake | 30.4391 | -91.8081 | X | | | | | |
| | LSU | | | | | HN18 | | | | Henderson Lake | 30.3899 | -91.7429 | X | | | | | |
| | LSU | | | | | HN19 | | | | Henderson Lake | 30.4221 | -91.7934 | X | | | | | |
| | LSU | | | | | HN20 | | | | Henderson Lake | 30.4042 | -91.7867 | X | | | | | |
| | LSU | | | | | HN21 | | | | Henderson Lake | 30.3941 | -91.7744 | X | | | | | |
| | LSU | | | | | HN22 | | | | Henderson Lake | 30.3909 | -91.7860 | X | | | | | |
| | LSU | | | | | HN23 | | | | Henderson Lake | 30.3818 | -91.7511 | X | | | | | |
| | LSU | | | | | HN24 | | | | Henderson Lake | 30.3803 | -91.7396 | X | | | | | |
| | LSU | | | | | HN25 | | | | Henderson Lake | 30.3623 | -91.7633 | X | | | | | |
| | LSU | | | | | HN26 | | | | Henderson Lake | 30.3601 | -91.7354 | X | | | | | |

| Site # | Agency | Subagency | USGS # | DWF # | USFWS # | LSU # | DEQ # | Audubon | Scotty's # | Description | Lat | Long | Fld Param. | Nutrient | Isotope | TSS | Synoptic | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LSU | | | | | HN27 | | | | Henderson Lake | 30.3416 | -91.7430 | X | | | | | |
| | LSU | | | | | HN28 | | | | Henderson Lake | 30.3440 | -91.7740 | X | | | | | |
| | LSU | | | | | HN29 | | | | Henderson Lake | 30.3450 | -91.7861 | X | | | | | |
| | LSU | | | | | HN30 | | | | Henderson Lake | 30.3271 | -91.7880 | X | | | | | |
| | LSU | | | | | HN31 | | | | Henderson Lake | 30.3404 | -91.7296 | X | | | | | |
| | LSU | | | | | HN32 | | | | Henderson Lake | 30.3277 | -91.7101 | X | | | | | |
| | LSU | | | | | HN33 | | | | Henderson Lake | 30.2933 | -91.7386 | X | | | | | |
| | LSU | | | | | HN35 | | | | Henderson Lake | 30.3071 | -91.7171 | X | | | | | |
| | LSU | | | | | HN36 | | | | Henderson Lake | 30.2996 | -91.7263 | X | | | | | |
| | LSU | | | | | HN37 | | | | Henderson Lake | 30.3215 | -91.7374 | X | | | | | |
| | LSU | | | | | HN38 | | | | Henderson Lake | 30.3237 | -91.7195 | X | | | | | |
| | LSU | | | | | HN39 | | | | Henderson Lake | 30.2856 | -91.7105 | X | | | | | |
| | LSU | | | | | HN40 | | | | Henderson Lake | 30.2835 | -91.7335 | X | | | | | |
| | LSU | | | | | HN41 | | | | Henderson Lake | 30.2831 | -91.7364 | X | | | | | |
| | LSU | | | | | HN42 | | | | Henderson Lake | 30.3232 | -91.7534 | X | | | | | |
| | LSU | | | | | HN43 | | | | Henderson Lake | 30.3090 | -91.7605 | X | | | | | |
| | LSU | | | | | HN44 | | | | Henderson Lake | 30.3220 | -91.7881 | X | | | | | |
| | USFWS | | | | A9 | | | | | Black bayou | 30.3817 | -91.5817 | X | X | X | | X | X |
| | USFWS | | | | | | | | | Black bayou 002 | 30.3816 | -91.5800 | X | | | | | |
| | USFWS | | | | | | | | | Gauge read | 30.3760 | -91.5544 | X | X | X | | X | X |
| | USFWS | | | | A13 | | | | | Klng ditch E | 30.3558 | -91.5473 | X | X | X | | X | X |
| | USFWS | | | | A12 | | | | | Klng ditch w | 30.3553 | -91.5484 | X | X | X | | X | X |
| | USFWS | | | | A11 | | | | | N drain 2 | 30.3905 | -91.5524 | X | X | X | | X | X |
| | USFWS | | | | A10 | | | | | North drain 1 | 30.3834 | -91.5728 | X | X | X | | X | X |
| | USFWS | | | | A15 | | | | | Upper flats | 30.2360 | -91.4459 | X | X | X | | X | X |
| | USFWS | | | | | | | | | Upper flats 002 | 30.2359 | -91.4459 | X | X | X | | X | X |
| | USFWS | | | | A16 | | | | | Work canal | 30.3792 | -91.5558 | | | | | | |
| | USFWS | | | | A14 | | | | | Work canal up gr | 30.2415 | -91.5267 | X | X | X | | X | X |
| | USGS | NAQUAN | 07381600 | | | | | | | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 29.6920 | -91.2110 | X | X | | | | X |
| | USGS | NAQUAN | 07381590 | | | | | | | WAX LAKE OUTLET AT CALUMET, LA | 29.6970 | -91.3720 | X | X | | | | X |
| | USGS | NAQUAN | 07381495 | | | | | | | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 30.6900 | -91.7360 | X | X | | | | X |

| Site # | Agency | Subagency | USGS # | DWF # | USFWS # | LSU # | DEQ # | Audubon | Scotty's # | Description | Lat | Long | Fld Param. | Nutrient | Isotope | TSS | Synoptic | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | USGS | NAQUAN | 07381495 | | | | | | | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 30.6900 | -91.7360 | X | X | | | | X |
| | USGS | NAQUAN | | | | | | | | Old River Structure | 31.0782 | -91.5951 | X | X | | | | X |
| | USGS | NAQUAN | | | | | | | | Morganza Spillway | 30.7875 | -91.6266 | X | X | | | | X |
| | LDEQ | AWQD | | | | | 0039 | | | West Atchafalaya Borrow Pit Canal northeast of Breaux Bridge | 30.3136 | -91.7886 | | | | | | X |
| | LDEQ | AWQD | | | | | 0671 | | | Atchafalaya River at Morgan City | 29.6964 | -91.2108 | | | | | | X |
| | USGS | Baton Rouge | 1readingsonly | | | | | | | Work canal | 30.2415 | -91.5268 | X | | | | | |
| | USGS | Baton Rouge | 2readingsonly | | | | | | | upper pigeon | 30.2388 | -91.5262 | X | | | | | |
| | USGS | Baton Rouge | 3readingsonly | | | | | | | Byu Indigo | 30.1209 | -91.4069 | X | | | | | |
| | USGS | Baton Rouge | Flood1.5 | | | | | | | Indigo nr acces canal | 30.1056 | -91.4169 | X | X | X | | | |
| | USGS | Baton Rouge | Grndriv | | | | | | | Grand River near Atch | 30.2368 | -91.5488 | X | X | X | | | |
| | USGS | Baton Rouge | N end of EGL | | | | | | | N end of EGL | 30.0277 | -91.4687 | X | X | X | | | |
| | USGS | Baton Rouge | Murphy Lake | | | | | | | Murphy Lake | 30.1070 | -91.3852 | X | X | X | | | X |
| | USGS | Baton Rouge | Bayou stringer | | | | | | | Bayou Stringer | 30.0318 | -91.2918 | X | X | X | | | X |
| | USGS | Baton Rouge | 164 | | | | | | | GIWW@sorrel | 30.1647 | -91.3503 | | X | X | X | X | |
| | USGS | Baton Rouge | 165 | | | | | | | Cannon | 30.1521 | -91.3757 | | X | X | X | X | |
| | USGS | Baton Rouge | 166 | | | | | | | Jakes_Byu | 30.1342 | -91.4451 | | X | X | X | X | |
| | USGS | Baton Rouge | 167 | | | | | | | Unnamed_Byu | 30.1177 | -91.4680 | | X | X | X | X | |
| | USGS | Baton Rouge | 168 | | | | | | | Sorrel_@_Atchafalaya | 30.1178 | -91.4740 | | X | X | X | X | |
| | USGS | Baton Rouge | 169 | | | | | | | Coon_Trap | 30.0981 | -91.4709 | | X | X | X | X | |
| | USGS | Baton Rouge | 170 | | | | | | | Byu_Indigo | 30.1351 | -91.4180 | | X | X | X | X | |
| | USGS | Baton Rouge | 171 | | | | | | | Bee_Byu | 30.0888 | -91.4237 | | X | X | X | X | |
| | USGS | Baton Rouge | 172 | | | | | | | Crosscanal | 30.0988 | -91.3885 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | crossbyu2 @ Lbyu pigeon | 30.0552 | -91.3670 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | Little Pigeon 1 | 30.0588 | -91.3618 | | X | X | X | X | |
| | USGS | Baton Rouge | 201 | | | | | | | LittlePigeon2 | 30.0508 | -91.3685 | | X | X | X | X | |
| | USGS | Baton Rouge | 198 | | | | | | | Byupigeon | 30.0774 | -91.3100 | | X | X | X | X | |
| | USGS | Baton Rouge | 199 | | | | | | | ByuBigpigeon | 30.0615 | -91.3541 | | X | X | X | X | |
| | USGS | Baton Rouge | 196 | | | | | | | ByuPostillion | 30.0076 | -91.2668 | | X | X | X | X | |
| | USGS | Baton Rouge | 203 | | | | | | | 16inch | 29.9100 | -91.2295 | | X | X | X | X | |
| | USGS | Baton Rouge | 148 | | | | | | | SondraThompsoncanal | 29.9144 | -91.2357 | | X | X | X | X | |
| | USGS | Baton Rouge | 149 | | | | | | | GIWWN_of_Old_River | 29.9627 | -91.2651 | | X | X | X | X | |

| Site # | Agency | Subagency | USGS # | DWF # | USFWS # | LSU # | DEQ # | Audubon | Scotty's # | Description | Lat | Long | Fld Param. | Nutrient | Isotope | TSS | Synoptic | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | USGS | Baton Rouge | 150 | | | | | | | Old_River | 29.9483 | -91.2699 | | X | X | X | X | |
| | USGS | Baton Rouge | 151 | | | | | | | Byu_Long@OldRiver | 29.9426 | -91.2680 | | X | X | X | X | |
| | USGS | Baton Rouge | 152 | | | | | | | 21_inch@GIWW | 29.9246 | -91.2541 | | X | X | X | X | |
| | USGS | Baton Rouge | 153 | | | | | | | Little_byu_long@EGL | 29.8953 | -91.3658 | | X | X | X | X | |
| | USGS | Baton Rouge | 154 | | | | | | | stream | 29.9101 | -91.3702 | | X | X | X | X | |
| | USGS | Baton Rouge | 155 | | | | | | | Big_Byu_Pigeon@EGL | 29.9395 | -91.3979 | | X | X | X | X | |
| | USGS | Baton Rouge | 156 | | | | | | | Pigeon_cutoff | 29.9978 | -91.4379 | | X | X | X | X | |
| | USGS | Baton Rouge | 157 | | | | | | | Little_Byu_Pigeon-@_E_Grand_L | 29.9910 | -91.4346 | | X | X | X | X | |
| | USGS | Baton Rouge | 158 | | | | | | | Hog_island_pass_W_side | 30.0299 | -91.4706 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | Hog_island_pass_E_side | 30.0302 | -91.4688 | | X | X | X | X | |
| | USGS | Baton Rouge | 159 | | | | | | | keelboatPass | 30.0565 | -91.4508 | | X | X | X | X | |
| | USGS | Baton Rouge | 160 | | | | | | | Texacopipeline@EGL | 29.9950 | -91.4455 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | ThibadeauxN | 29.8785 | -91.3852 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | ThibadeauxS | 29.8776 | -91.3851 | | X | X | X | X | |
| | USGS | Baton Rouge | 162 | | | | | | | Interior1 | 29.8760 | -91.3779 | | X | X | X | X | |
| | USGS | Baton Rouge | 161 | | | | | | | InteriorCirculation | 29.8861 | -91.3760 | | X | X | X | X | |
| | USGS | Baton Rouge | 180 | | | | | | | FlatLakeX | 29.7592 | -91.1893 | | X | X | X | X | |
| | USGS | Baton Rouge | 181 | | | | | | | FlatLakeX | 29.7591 | -91.1944 | | X | X | X | X | |
| | USGS | Baton Rouge | 182 | | | | | | | FlatLakeX | 29.7595 | -91.1996 | | X | X | X | X | |
| | USGS | Baton Rouge | 183 | | | | | | | FlatLakeX | 29.7601 | -91.2047 | | X | X | X | X | |
| | USGS | Baton Rouge | 184 | | | | | | | FlatLakeX | 29.7613 | -91.2098 | | X | X | X | X | |
| | USGS | Baton Rouge | 185 | | | | | | | FlatLakeX | 29.7629 | -91.2152 | | X | X | X | X | |
| | USGS | Baton Rouge | 186 | | | | | | | FlatLakeX | 29.7634 | -91.2203 | | X | X | X | X | |
| | USGS | Baton Rouge | 187 | | | | | | | FlatLakeX | 29.7634 | -91.2224 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | FlatlakeXtotal | 29.7614 | -91.2097 | | X | X | X | X | |
| | USGS | Baton Rouge | 179 | | | | | | | BearByu | 29.7786 | -91.2090 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | BigBayouJessienrFlatLake | 29.7648 | -91.2249 | | X | X | X | X | |
| | USGS | Baton Rouge | 178 | | | | | | | DogIslandPass2@Flat Lake | 29.7645 | -91.2252 | | X | X | X | X | |
| | USGS | Baton Rouge | 188 | | | | | | | DogIslandPass@River | 29.7612 | -91.2410 | | X | X | X | X | |
| | USGS | Baton Rouge | 189 | | | | | | | AmericanPass | 29.7640 | -91.2517 | | X | X | X | X | |
| | USGS | Baton Rouge | 193 | | | | | | | Bluepointchute | 29.8271 | -91.3739 | | X | X | X | X | |

| Site # | Agency | Subagency | USGS # | DWF # | USFWS # | LSU # | DEQ # | Audubon | Scotty's # | Description | Lat | Long | Fld Param. | Nutrient | Isotope | TSS | Synoptic | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | USGS | Baton Rouge | 194 | | | | | | | Bluepoint2 | 29.8524 | -91.3624 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | bluepoint3 | 29.8535 | -91.3577 | | X | X | X | X | |
| | USGS | Baton Rouge | 195 | | | | | | | LittleByuLong | 29.8512 | -91.3340 | | X | X | X | X | |
| | USGS | Baton Rouge | 174 | | | | | | | Shellfield | 29.8570 | -91.2067 | | X | X | X | X | |
| | USGS | Baton Rouge | 175 | | | | | | | LittleByuSorrel@GIWW | 29.7953 | -91.1767 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | ByuGrosbeck | 29.7857 | -91.1789 | | X | X | X | X | |
| | USGS | Baton Rouge | 176 | | | | | | | ByuLong@flatlake | 29.7580 | -91.1853 | | X | X | X | X | |
| | USGS | Baton Rouge | 177 | | | | | | | GIWW2 | 29.7384 | -91.1775 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | GIWW3 | 29.7248 | -91.2033 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | FlatLakeS | 29.7269 | -91.2072 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | workcanal | 30.2448 | -91.5322 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | uppergrand@giww | 30.2324 | -91.4316 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | Grand@ATch | 30.2352 | -91.5526 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | giwwNofgrand | 30.2337 | -91.4310 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | grosbeck2 | 29.7694 | -91.1924 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | oilcanalnofOr | 29.9867 | -91.3407 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | MiddleForkbyulong | 29.9019 | -91.3231 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | litlsorrel@american | 29.7948 | -91.2763 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | flgasEofkeelboat | 30.0890 | -91.4342 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | bigjoe | 29.7943 | -91.2750 | | X | X | X | X | |
| | USGS | Baton Rouge | -99 | | | | | | | bigFork | 29.8131 | -91.2244 | | X | X | X | X | |
| | USGS | Lafayette | | | | | | | | canal off poncho chute | 29.9736 | -91.5070 | | | | | X | |
| | USGS | Lafayette | | | | | | | | Lk fausse point cut | 30.1504 | -91.5841 | | | | | X | |
| | USGS | Lafayette | | | | | | | | element15 | 30.0733 | -91.5498 | | | | | X | |
| | USGS | Lafayette | | | | | | | | phillips canal | 30.0655 | -91.4933 | | | | | X | |
| | USGS | Lafayette | | | | | | | | eugene S of Sibon | 30.0449 | -91.5641 | | | | | X | |
| | USGS | Lafayette | | | | | | | | byu Eugene | 30.0949 | -91.5782 | | | | | X | |
| | USGS | Lafayette | | | | | | | | byu darby | 30.0744 | -91.5852 | | | | | X | |
| | USGS | Lafayette | | | | | | | | tyler cut | 30.0486 | -91.5773 | | | | | X | |
| | USGS | Lafayette | | | | | | | | buffalo Cove outlet | 29.9800 | -91.5247 | | | | | X | |
| | USGS | Lafayette | | | | | | | | spice island chute | 30.2185 | -91.5660 | | | | | X | |

| Site # | Agency | Subagency | USGS # | DWF # | USFWS # | LSU # | DEQ # | Audubon | Scotty's # | Description | Lat | Long | Fld Param. | Nutrient | Isotope | TSS | Synoptic | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | USGS | Lafayette | | | | | | | | byu de plomb | 30.1448 | -91.5337 | | | | | X | |
| | USGS | Lafayette | | | | | | | | element 9.1 | 30.0431 | -91.4945 | | | | | X | |
| | USGS | Lafayette | | | | | | | | grand byu | 30.1504 | -91.5841 | | | | | X | |
| | USGS | Lafayette | | | | | | | | element9.2 | 30.0329 | -91.4937 | | | | | X | |
| | USGS | Lafayette | | | | | | | | poncho chute | 29.9844 | -91.5100 | | | | | X | |
| | USGS | Lafayette | | | | | | | | Sibon | 30.0406 | -91.5722 | | | | | X | |
| | USGS | Lafayette | | | | | | | | Florida gas west | 30.0983 | -91.5798 | | | | | X | |
| | USGS | Lafayette | | | | | | | | Florida Gas E | 30.0983 | -91.5798 | | | | | X | |
| | USGS | Lafayette | | | | | | | | wanda@phillips | 29.9736 | -91.5070 | | | | | X | |
| | USGS | Lafayette | | | | | | | | wanda e of 15 | 30.0983 | -91.5798 | | | | | X | |
| | USGS | Lafayette | | | | | | | | jackass bay | 30.0983 | -91.5798 | | | | | X | |
| | USGS | Lafayette | | | | | | | | gravenburg cut | 30.0631 | -91.5328 | | | | | X | |
| | USGS | Lafayette | | | | | | | | sandhill cut | 30.0153 | -91.5503 | | | | | X | |
| | USGS | Lafayette | | | | | | | | byu gonsolin | 30.1504 | -91.5841 | | | | | X | |
| | USGS | Lafayette | | | | | | | | Atch main channel | 30.1504 | -91.5841 | | | | | X | |
| | USGS | Lafayette | | | | | | | | Byu chene | 30.1504 | -91.5841 | | | | | X | |
| | USGS | Lafayette | | | | | | | | byu chene @closure | 30.1504 | -91.5841 | | | | | X | |
| | USGS | Lafayette | | | | | | | | lkfausse pointba26 | 30.1504 | -91.5841 | | | | | X | |
| | USGS | Lafayette | | | | | | | | grand lakeE ba28 | 29.8508 | -91.4855 | | | | | X | |
| | USGS | Lafayette | | | | | | | | grandlakeWba29 | 29.8508 | -91.4855 | | | | | X | |
| | USGS | Lafayette | | | | | | | | grandlakeEba30 | 29.8508 | -91.4855 | | | | | X | |
| | USGS | Lafayette | | | | | | | | grandlakeba31 | 29.8508 | -91.4855 | | | | | X | |
| | USGS | Lafayette | | | | | | | | grandlakeba32 | 29.8508 | -91.4855 | | | | | X | |
| | USGS | Lafayette | | | | | | | | grandlakenrchicoba33 | 29.8508 | -91.4855 | | | | | X | |
| | USGS | Lafayette | | | | | | | | atch pass E | 29.8508 | -91.4855 | | | | | X | |
| | USGS | Lafayette | | | | | | | | atch distribba35 | 29.8508 | -91.4855 | | | | | X | |
| | USGS | Lafayette | | | | | | | | long lake | 30.1504 | -91.5841 | | | | | X | |
| | USGS | Lafayette | | | | | | | | chicot pass | 29.8508 | -91.4855 | | | | | X | |
| | USGS | Lafayette | | | | | | | | poncho chute N | 29.8508 | -91.4855 | | | | | X | |
| | USGS | Lafayette | | | | | | | | center lower lk long | 29.8508 | -91.4855 | | | | | X | |
| | USGS | Lafayette | | | | | | | | W lower lk long | 29.8508 | -91.4855 | | | | | X | |

| Site # | Agency | Subagency | USGS # | DWF # | USFWS # | LSU # | DEQ # | Audubon | Scotty's # | Description | Lat | Long | Fld Param. | Nutrient | Isotope | TSS | Synoptic | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | USGS | Lafayette | | | | | | | | phillips @main | 29.8508 | -91.4855 | | | | | X | |
| 102 | USGS | Lafayette | | | 102 | | | | | Grand Lake Channel | 29.9022 | -91.4806 | | | | | | |
| 103 | USGS | Lafayette | | | 103 | | | | | Channel | 29.8229 | -91.3798 | | | | | | |
| 101 | USGS | Lafayette | | | 101 | | | | | | 29.9016 | -91.4852 | | | | | | |
| | Audubon | | | | | | | NAS1H | | | 29.3846 | -91.3743 | X | | | | | |
| | Audubon | | | | | | | NAS2H | | | 29.5759 | -91.5398 | X | | | | | |
| | Audubon | | | | | | | NAS3H | | | 29.6591 | -91.6575 | X | | | | | |
| | Audubon | | | | | | | NAS4H | | | 29.7041 | -92.0798 | X | | | | | |
| | Audubon | | | | | | | NAS6H | | | 29.9744 | -91.3164 | | | | | | X |
| | Audubon | | | | | | | NAS7H | | | 29.9744 | -91.3164 | X | | | | | |
| | Audubon | | | | | | | NAS8H | | | 30.1502 | -91.3835 | | | | | | X |
| | Audubon | | | | | | | NAS9H | | | 30.1502 | -91.3835 | X | | | | | |
| | Audubon | | | | | | | NAS12H | | | 29.5975 | -92.0094 | | | | | | X |
| | LSU | RNR | | | | BC1 | | | | | 29.9936 | -91.5256 | X | | | | | X |
| | LSU | RNR | | | | BC2 | | | | | 29.9966 | -91.5187 | X | | | | | X |
| | LSU | RNR | | | | BC3 | | | | | 30.0031 | -91.5184 | X | | | | | X |
| | LSU | RNR | | | | BC4 | | | | | 30.0042 | -91.5238 | X | | | | | X |
| | LSU | RNR | | | | BC6 | | | | | 30.0049 | -91.5351 | X | | | | | X |
| | LSU | RNR | | | | BC8 | | | | | 30.0115 | -91.5448 | X | | | | | X |
| | LSU | RNR | | | | BC11 | | | | | 30.0168 | -91.5324 | X | | | | | X |
| | LSU | RNR | | | | BC15 | | | | | 30.0197 | -91.5110 | X | | | | | X |
| | LSU | RNR | | | | BC18 | | | | | 30.0293 | -91.5270 | X | | | | | X |
| | LSU | RNR | | | | BC27 | | | | | 30.0621 | -91.5414 | X | | | | | X |
| | LSU | RNR | | | | BC31 | | | | | 30.0760 | -91.5528 | X | | | | | X |
| | LSU | RNR | | | | BC32 | | | | | 30.0747 | -91.5637 | X | | | | | X |
| | LSU | RNR | | | | BC34 | | | | | 30.0831 | -91.5650 | X | | | | | X |
| | LSU | RNR | | | | BC37 | | | | | 30.0936 | -91.5631 | X | | | | | X |
| | LSU | RNR | | | | BC39 | | | | | 30.0914 | -91.5537 | X | | | | | X |
| | LSU | RNR | | | | BC40 | | | | | 30.0907 | -91.5485 | X | | | | | X |
| | LSU | RNR | | | | BC41 | | | | | 30.0870 | -91.5441 | X | | | | | X |
| | LSU | RNR | | | | BC42 | | | | | 30.0824 | -91.5417 | X | | | | | X |
| | LSU | RNR | | | | BC47 | | | | | 30.0974 | -91.5509 | X | | | | | X |
| | LSU | RNR | | | | BC48 | | | | | 30.0935 | -91.5460 | X | | | | | X |
| | LSU | RNR | | | | BC51 | | | | | 30.0679 | -91.5822 | X | | | | | X |
| | LSU | RNR | | | | BC52 | | | | | 30.0577 | -91.5740 | X | | | | | X |

| Site # | Agency | Subagency | USGS # | DWF # | USFWS # | LSU # | DEQ # | Audubon | Scotty's # | Description | Lat | Long | Fld Param. | Nutrient | Isotope | TSS | Synoptic | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LSU | RNR | | | | BC53 | | | | | 30.0541 | -91.5681 | X | | | | | X |
| | LSU | RNR | | | | BC61 | | | | | 30.0371 | -91.5196 | X | | | | | X |
| | LSU | RNR | | | | BC62 | | | | | 30.0428 | -91.5062 | X | | | | | X |
| | LSU | RNR | | | | BC63 | | | | | 30.0272 | -91.4991 | X | | | | | X |
| | LSU | RNR | | | | BC64 | | | | | 30.0264 | -91.4990 | X | | | | | X |
| | LSU | RNR | | | | BC65 | | | | | 30.0241 | -91.5076 | X | | | | | X |
| | LSU | RNR | | | | BC66 | | | | | 30.0105 | -91.5032 | X | | | | | X |
| | LSU | RNR | | | | BC67 | | | | | 30.0024 | -91.4990 | X | | | | | X |
| | LSU | RNR | | | | BC68 | | | | | 29.9986 | -91.4953 | X | | | | | X |
| | LSU | RNR | | | | BC69 | | | | | 29.9938 | -91.4916 | X | | | | | X |
| | LSU | RNR | | | | BC70 | | | | | 29.9849 | -91.4986 | X | | | | | X |
| | LSU | RNR | | | | BC72 | | | | | 29.9764 | -91.5020 | X | | | | | X |
| | LSU | RNR | | | | BC75 | | | | | 29.9751 | -91.5162 | X | | | | | X |
| | LSU | RNR | | | | BC80 | | | | | 30.0659 | -91.5742 | X | | | | | X |
| | LSU | RNR | | | | BC84 | | | | | 30.0462 | -91.5168 | X | | | | | X |
| | LSU | RNR | | | | BC85 | | | | | 30.0295 | -91.5438 | X | | | | | X |
| | LSU | RNR | | | | BC86 | | | | | 30.0219 | -91.5514 | X | | | | | X |
| | LSU | RNR | | | | BC89 | | | | | 30.0589 | -91.5765 | X | | | | | X |
| | LSU | RNR | | | | BC90 | | | | | 30.0730 | -91.5824 | X | | | | | X |
| | LSU | RNR | | | | BC100 | | | | | 30.0845 | -91.5544 | X | | | | | X |
| | LSU | RNR | | | | BC108 | | | | | 30.0428 | -91.5772 | X | | | | | X |
| | LSU | RNR | | | | BC109 | | | | | 30.0585 | -91.5429 | X | | | | | X |
| | LSU | RNR | | | | BC999 | | | | | 29.9901 | -91.5515 | X | | | | | X |
| | LSU | RNR | | | | BC200 | | | | | 30.0694 | -91.5476 | X | | | | | X |
| | LSU | RNR | | | | INA6 | | | | | 30.0899 | -91.4133 | X | | | | | X |
| | LSU | RNR | | | | INE51 | | | | | 30.0557 | -91.4515 | X | | | | | X |
| | LSU | RNR | | | | INE52 | | | | | 30.0292 | -91.4691 | X | | | | | X |
| | LSU | RNR | | | | INE53 | | | | | 30.0053 | -91.4437 | X | | | | | X |
| | LSU | RNR | | | | INE54 | | | | | 29.9857 | -91.4351 | X | | | | | X |
| | LSU | RNR | | | | INE55 | | | | | 29.9628 | -91.4312 | X | | | | | X |
| | LSU | RNR | | | | INE56 | | | | | 29.9645 | -91.4312 | X | | | | | X |
| | LSU | RNR | | | | INE57 | | | | | 29.9362 | -91.4042 | X | | | | | X |
| | LSU | RNR | | | | INE58 | | | | | 29.9377 | -91.4022 | X | | | | | X |
| | LSU | RNR | | | | INE59 | | | | | 29.9396 | -91.4011 | X | | | | | X |
| | LSU | RNR | | | | INE60 | | | | | 29.8870 | -91.3748 | X | | | | | X |
| | LSU | RNR | | | | INE61 | | | | | 29.9086 | -91.3720 | X | | | | | X |
| | LSU | RNR | | | | INE62 | | | | | 29.9156 | -91.3841 | X | | | | | X |

| Site # | Agency | Subagency | USGS # | DWF # | USFWS # | LSU # | DEQ # | Audubon | Scotty's # | Description | Lat | Long | Fld Param. | Nutrient | Isotope | TSS | Synoptic | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LSU | RNR | | | | INE63 | | | | | 29.9086 | -91.3807 | X | | | | | X |
| | LSU | RNR | | | | INE64 | | | | | 30.0929 | -91.4642 | X | | | | | X |
| | LSU | RNR | | | | INE65 | | | | | 30.0585 | -91.4623 | X | | | | | X |
| | LSU | RNR | | | | INE66 | | | | | 29.9994 | -91.4400 | X | | | | | X |
| | LSU | RNR | | | | INE67 | | | | | 29.8586 | -91.3709 | X | | | | | X |
| | LSU | RNR | | | | INE68 | | | | | 29.9333 | -91.4001 | X | | | | | X |
| | LSU | RNR | | | | INE69 | | | | | 29.9374 | -91.3972 | X | | | | | X |
| | LSU | RNR | | | | ROV1 | | | | | 30.0885 | -91.4348 | X | | | | | X |
| | LSU | RNR | | | | ROV2 | | | | | 30.0613 | -91.4583 | X | | | | | X |
| | LSU | RNR | | | | ROV3 | | | | | 29.9979 | -91.4378 | X | | | | | X |
| | LSU | RNR | | | | ROV4 | | | | | 29.9426 | -91.4027 | X | | | | | X |
| | LSU | RNR | | | | ROV5 | | | | | 29.9333 | -91.4005 | X | | | | | X |

# Appendix B
# Field Parameter Analyses Results

# Table B1. USGS East Atchafalaya Basin Synoptic Run

| Location | Date | Turb. (NTU) | TSS (mg/L) | EC (µS/cm) | pH (s.u.) | DO (mg/L) | Temp (ºC) | Discharge ($ft^3$/sec) | Area ($ft^2$) | Velocity (ft/sec) | Direction (º) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GIWW@sorrel | 3/7/2011 | 374 | 557 | 314 | 7.6 | 9.48 | 8.62 | 14200 | 6340 | 2.43 | 122 |
| Cannon | 3/7/2011 | 391 | 585 | 316 | 7.65 | 9.45 | 8.65 | 449 | 397 | 1.26 | 183 |
| Jakes_Byu | 3/7/2011 | 315 | 410 | 319 | 7.69 | 9.5 | 8.83 | 1930 | 1230 | 1.7 | 117 |
| Unnamed_Byu | 3/7/2011 | 375 | 588 | 314 | 7.74 | 9.35 | 8.65 | 919 | 854 | 1.34 | 178 |
| Sorrel_@_Atchafalaya | 3/7/2011 | 364 | 555 | 314 | 7.74 | 9.42 | 8.63 | 10100 | 4440 | 2.4 | 51 |
| Coon_Trap | 3/7/2011 | 389 | 567 | 313 | 7.73 | 9.43 | 8.6 | 814 | 1092 | 0.79 | 113 |
| Byu_Indigo | 3/7/2011 | 395 | 567 | 316 | 7.6 | 9.38 | 8.66 | 1010 | 667 | 1.76 | 71 |
| Bee_Byu | 3/7/2011 | 209 | 272 | 331 | 7.7 | 9.17 | 9.92 | 270 | 421 | 0.7 | 84 |
| Crosscanal | 3/7/2011 | 244 | 319 | 329 | 7.65 | 8.61 | 9.9 | 864 | 670 | 1.42 | 108 |
| crossbyu2 @ Lbyu pigeon | 3/7/2011 |  | 36 |  |  |  |  | 791 | 753 | 1.25 | 322 |
| Little Pigeon 1 | 3/7/2011 | 252 | 441 | 322 | 7.74 | 9.53 | 9.19 | 3160 | 1405 | 2.51 | 187 |
| LittlePigeon2 | 3/7/2011 | 293 | 441 | 323 | 7.74 | 9.45 | 9.2 | 1900 | 1122 | 1.86 | 213 |
| Byupigeon | 3/7/2011 |  | 364 |  |  |  |  | 3090 | 1717 | 1.92 | 284 |
| ByuBigpigeon | 3/7/2011 |  | 353 |  |  |  |  | 188 | 253 | 0.83 | 162 |
| ByuPostillion | 3/7/2011 |  | 491 |  |  |  |  | 1900 | 960 | 2.13 | 295 |
| Williamscanal | 3/7/2011 |  | 234 |  |  |  |  | 56 | 171 | 0.36 | 270 |
| 16inch | 3/8/2011 | 215 | 254 | 322 | 7.69 | 9.32 | 9.61 | 69 | 83 | 0.92 | 183 |
| GIWWN_of_Old_River | 3/8/2011 | 381 | 668 | 317 | 7.7 | 9.26 | 9.05 | 9720 | 5418 | 1.96 | 182 |
| Old_River | 3/8/2011 | 35 | 58 | 385 | 7.69 | 8.64 | 13.41 | 579 | 7126 | 0.11 | 80 |
| Byu_Long @ Old River | 3/8/2011 | 59 | 114 | 354 | 7.71 | 8.62 | 11.42 | 703 | 2104 | 0.42 | 198 |
| 21_inch @ GIWW | 3/8/2011 | 201 | 226 | 321 | 774 | 8.56 | 9.63 | 288 | 344 | 0.89 | 220 |
| Little_byu_long @ EGL | 3/8/2011 | 45 | 84 | 405 | 8.11 | 9.27 | 14.93 | 703 | 2104 | 0.42 | 198 |
| stream | 3/8/2011 | 28 | 89 | 456 | 8.16 | 8.59 | 17.8 |  | 485 | 0.02 |  |
| Big_Byu_Pigeon @ EGL | 3/8/2011 | 23 | 73 | 444 | 8.16 | 8.92 | 17.28 |  | 2149 | 0.33 | 337 |
| Pigeon_cutoff | 3/8/2011 | 27 | 76 | 399 | 7.38 | 7.08 | 14.92 |  | 358 | 0.45 | 65 |
| Little_Byu_Pigeon-@_E_Grand_L | 3/8/2011 | 2.5 | 185 | 430 | 7.4 | 6 | 16.36 |  | 144 | 0.06 | 280 |
| Hog_island_pass_W_side | 3/8/2011 |  |  |  |  |  |  |  | 2672 | 0.11 | 253 |
| Hog_island_pass_E_side | 3/8/2011 | 165 | 183 | 318 | 7.78 | 9.12 | 9.52 |  | 2961 | 0.44 | 198 |
| keelboatPass | 3/8/2011 | 325 | 419 | 312 | 7.78 | 8.36 | 9.14 | 1440 | 779 | 1.93 | 218 |
| Texaco pipeline @ EGL | 3/8/2011 | 431 | 667 | 313 | 7.76 | 7.53 | 9.07 | 170 | 259 | 0.67 | 73 |
| ThibadeauxN | 3/8/2011 | 173 | 163 | 330 | 7.79 | 8.59 | 10.77 |  | 690 | 0.78 | 95 |
| ThibadeauxS | 3/8/2011 | 141 | 210 | 326 | 7.77 | 8.46 | 10.44 |  | 580 | 0.21 | 31 |
| Interior1 | 3/8/2011 | 25 | 91 | 453 | 7.56 | 7.88 | 10.58 |  | 872 | 0.18 | 355 |
| InteriorCirculation | 3/8/2011 | 125 | 238 | 354 | 7.78 | 8.47 | 12.13 | 758 | 861 | 0.95 | 37 |
| FlatLakeX | 3/10/2011 | 182 |  | 343 | 7.53 | 8.92 | 11.53 |  |  | 0.72 | 248 |
| FlatLakeX | 3/10/2011 | 57.7 |  | 375 | 7.46 | 8.58 | 14.4 |  |  | 0.24 | 215 |
| FlatLakeX | 3/10/2011 | 12 |  | 441 | 7.12 | 4.7 | 17.69 |  |  | 0.29 | 158 |
| FlatLakeX | 3/10/2011 | 122 |  | 350 | 7.48 | 8.11 | 12.15 |  |  | 0.4 | 131 |
| FlatLakeX | 3/10/2011 | 168 |  | 346 | 7.46 | 8.36 | 11.86 |  |  | 0.71 | 115 |
| FlatLakeX | 3/10/2011 | 182 |  | 346 | 7.46 | 8.08 | 11.8 |  |  | 1.19 | 104 |
| FlatLakeX | 3/10/2011 | 129 |  | 358 | 7.39 | 8.05 | 12.79 |  |  | 0.9 | 141 |
| BearByu | 3/10/2011 | 0 |  | 453 | 6.92 | 1.51 | 17.86 | 1200 | 3834 | 0.34 | 188 |
| Big Bayou Jessie nr Flat Lake | 3/10/2011 | 37 | 92 | 389 | 7.2 | 5 | 15.08 | 1940 | 2310 | 0.95 | 192 |
| DogIslandPass2 @ Flat Lake | 3/10/2011 | 94 | 339 | 351 | 7.47 | 7.75 | 12.59 | 5760 | 8102 | 1.08 | 90 |
| DogIslandPass @ River | 3/10/2011 | 411 | 881 | 312 | 7.71 | 9.21 | 8.9 | 2000 | 820 | 2.71 | 8 |
| AmericanPass | 3/10/2011 | 427 | 763 | 313 | 7.72 | 9.3 | 8.95 | 1820 | 1041 | 1.85 | 335 |
| 21inch2 @ River | 3/10/2011 | 343 | 568 | 311 | 7.72 | 8.98 | 8.95 | 1700 | 894 | 2.12 | 45 |
| Wellhead | 3/10/2011 | 331 | 560 | 312 | 7.74 | 9.25 | 9.17 | 717 | 580 | 1.45 | 4 |

| Location | Date | Turb. (NTU) | TSS (mg/L) | EC (µS/cm) | pH (s.u.) | DO (mg/L) | Temp (ºC) | Discharge ($ft^3$/sec) | Area ($ft^2$) | Velocity (ft/sec) | Direction (º) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DogLeg | 3/10/2011 | 304 | 452 | 314 | 7.73 | 9.27 | 9.3 | 206 | 227 | 1.08 | 58 |
| Bluepointchute | 3/10/2011 | 344 | 489 | 312 | 7.75 | 9.1 | 9.14 | 3820 | 1969 | 2.05 | 360 |
| Bluepoint2 | 3/10/2011 | 293 | 380 | 313 | 7.75 | 9.36 | 9.39 | 3050 | 1844 | 1.73 | 98 |
| blue point 3 | 3/10/2011 | 314 | 421 | 313 | 7.76 | 9.36 | 9.39 | 1600 | 938 | 1.79 | 61 |
| Shellfield | 3/10/2011 | 32 | 79 | 407 | 7.36 | 8.13 | 16.88 | 181 | 2392 | 0.08 | 33 |
| LittleByuSorrel @ GIWW | 3/10/2011 | 5 | 50 | 448 | 7.42 | 7.34 | 17.99 | 1140 | 2997 | 0.44 | 70 |
| ByuGrosbeck | 3/10/2011 | 84 | 143 | 373 | 7.53 | 8.22 | 13.62 | 115 | 215 | 0.68 | 332 |
| ByuLong @ flat lake | 3/11/2011 | 168 | 161 | 339 | 7.51 | 8.68 | 11.01 | 4980 | 5013 | 1.07 | 209 |
| GIWW2 | 3/11/2011 | 120 | 162 | 343 | 7.51 | 8.79 | 11.29 | 6910 | 7671 | 0.96 | 176 |
| GIWW3 | 3/11/2011 | 122 | 132 | 318 | 7.61 | 9.22 | 11.05 | 5536 | 8001 | 0.75 | 262 |
| FlatLakeS | 3/11/2011 | 54 | 77 | 345 | 7.42 | 8.65 | 13.51 | 12500 | 19428 | 0.7 | 200 |
| texaco@river | 3/17/2011 | 219 | 352 | 264 | 7.54 | 8.76 | 9.93 | 405 | 2.25 | 72 | 193 |
| texacoWofschwing | 3/17/2011 | 240 | 415 | 265 | 7.58 | 8.89 | 10.16 | 409 | 1.63 | 66 | 285 |
| Texaco pipeline @ EGL | 3/17/2011 | 224 | 345 | 265 | 7.59 | 8.86 | 10.34 | 236 | 0.91 | 68 | 282 |
| GIWW@sorrel | 4/4/2011 | 63 | 143 | 276 | 7.33 | 8.53 | 14.05 | 17100 | 7500 | 2.27 | 113 |
| Cannon | 4/4/2011 | 68 | 203 | 269 | 7.51 | 9.13 | 13.38 | 1800 | 840 | 2.16 | 179 |
| Jakes_Byu | 4/4/2011 | 61 | 169 | 270 | 7.57 | 9.08 | 13.55 | 3000 | 1540 | 1.96 | 113 |
| Unnamed_Byu | 4/4/2011 | 66 | 147 | 270 | 7.58 | 9.07 | 13.33 | 3400 | 1200 | 2.83 | 177 |
| Sorrel_@_Atchafalaya | 4/4/2011 | 66 | 165 | 269 | 7.6 | 9.05 | 13.33 | 13000 | 5100 | 2.56 | 50 |
| Coon_Trap | 4/4/2011 | 67 | 481 | 270 | 7.63 | 8.99 | 13.38 | 4400 | 1800 | 2.43 | 113 |
| Byu_Indigo | 4/4/2011 | 63 | 168 | 269 | 7.54 | 9.01 | 13.33 | 1700 | 950 | 1.78 | 84 |
| Bee_Byu | 4/4/2011 | 36 | 94 | 278 | 7.56 | 8.8 | 14.72 | 480 | 700 | 0.69 | 92 |
| Crosscanal | 4/4/2011 |  | 50 |  |  |  |  | 810 | 1100 | 0.77 | 108 |
| crossbyu2 @ Lbyu pigeon | 4/4/2011 |  | 36 |  |  |  |  | 380 | 1000 | 0.38 | 137 |
| Little Pigeon 1 | 4/4/2011 | 33 | 78 | 288 | 7.34 | 7.17 | 16.76 | 2200 | 2000 | 1.08 | 237 |
| LittlePigeon2 | 4/4/2011 | 18 | 47 | 302 | 7.2 | 5.83 | 18.89 | 1600 | 1700 | 0.98 | 215 |
| Byupigeon | 4/4/2011 | 60 | 171 | 279 | 7.55 | 8.38 | 14.51 | 5200 | 2300 | 2.25 | 287 |
| ByuBigpigeon | 4/4/2011 | 65 | 151 | 280 | 7.57 | 8.33 | 14.69 | 760 | 560 | 1.38 | 162 |
| ByuPostillion | 4/4/2011 |  | 151 |  |  |  |  | 1600 | 1700 | 0.94 | 298 |
| Williamscanal | 4/4/2011 |  | 133 |  |  |  |  | 600 | 370 | 1.62 | 267 |
| 16inch | 4/5/2011 | 52 | 208 | 287 | 7.19 | 7.45 | 16.31 | 290 | 270 | 1.09 | 183 |
| Sondra Thompson canal | 4/5/2011 | 60 | 124 | 288 | 7.16 | 7.31 | 16.42 | 518 | 1300 | 0.4 | 234 |
| GIWWN_of_Old_River | 4/7/2011 | 48 | 100 | 278 | 7.26 | 8.78 | 14.22 | 9900 | 6800 | 1.46 | 182 |
| Old_River | 4/5/2011 |  | 27 |  |  |  |  | 6400 | 7400 | 0.87 | 110 |
| Byu_Long @ Old River | 4/5/2011 |  | 59 |  |  |  |  | 1100 | 1900 | 0.57 | 182 |
| 21_inch @ GIWW | 4/5/2011 |  | 108 |  |  |  |  | 281 | 660 | 0.43 | 212 |
| Little_byu_long @ EGL | 4/5/2011 | 15 | 73 | 293 | 7.24 | 7.21 | 18 | 1000 | 1500 | 0.68 | 86 |
| stream | 4/5/2011 | 15 | 58 | 293 | 7.26 | 7.17 | 18 | 220 | 760 | 0.28 | 27 |
| Big_Byu_Pigeon @ EGL | 4/5/2011 | 1.8 | 58 | 307 | 6.95 | 3.31 | 21.2 | 380 | 3000 | 0.13 | 177 |
| Pigeon_cutoff | 4/5/2011 |  | 64 |  |  |  |  | 480 | 680 | 0.71 | 242 |
| Little_Byu_Pigeon-@_E_Grand_L | 4/5/2011 | 1 | 95 | 312 | 6.87 | 1.25 | 20.41 | 9 | 200 | 0.03 | 288 |
| Hog_island_pass_W_side | 4/5/2011 |  |  |  |  |  |  |  | 920 | 1.19 | 140 |
| Hog_island_pass_E_side | 4/5/2011 |  | 354 |  |  |  |  |  | 2900 | 0.58 | 173 |
| keelboatPass | 4/5/2011 |  | 179 |  |  |  |  | 2100 | 970 | 2.62 | 218 |
| Texaco pipeline @ EGL | 4/5/2011 |  | 113 |  |  |  |  | 340 | 480 | 0.7 | 66 |
| ThibadeauxN | 4/5/2011 |  | 132 |  |  |  |  |  | 1100 | 0.35 | 93 |
| ThibadeauxS | 4/5/2011 |  | 69 |  |  |  |  |  | 1100 | 0.08 | 31 |
| Interior1 | 4/5/2011 |  | 137 |  |  |  |  | 620 | 1500 | 0.41 | 345 |
| InteriorCirculation | 4/5/2011 |  | 126 |  |  |  |  | 960 | 1500 | 0.65 | 34 |

| Location | Date | Turb. (NTU) | TSS (mg/L) | EC (µS/cm) | pH (s.u.) | DO (mg/L) | Temp (ºC) | Discharge ($ft^3$/sec) | Area ($ft^2$) | Velocity (ft/sec) | Direction (º) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FlatLakeX | 4/6/2011 | 11 | | 337 | 6.94 | 4 | 19.46 | | 1.26 | | 270 |
| FlatLakeX | 4/6/2011 | 1.1 | | 358 | 6.89 | 2.81 | 21.2 | | 1.33 | | 280 |
| FlatLakeX | 4/6/2011 | 0 | | 356 | 6.83 | 1.42 | 21.7 | | 1.34 | | 230 |
| FlatLakeX | 4/6/2011 | 11 | | 340 | 6.95 | 3.35 | 20.6 | | 1.02 | | 132 |
| FlatLakeX | 4/6/2011 | 28 | | 323 | 7.1 | 5.15 | 17.8 | | 1.25 | | 106 |
| FlatLakeX | 4/6/2011 | 25 | | 323 | 7.16 | 5.14 | 17.7 | | 1.38 | | 97 |
| FlatLakeX | 4/6/2011 | 25 | | 323 | 7.12 | 5.04 | 17.9 | | 1.49 | | 126 |
| BearByu | 4/6/2011 | 0.3 | 45 | 354 | 6.83 | 1 | 21.66 | 3700 | 3850 | 0.95 | 190 |
| Big Bayou Jessie nr Flat Lake | 4/6/2011 | 27 | 69 | 333 | 6.95 | 2.85 | 19.6 | 3200 | 2800 | 1.14 | 185 |
| DogIslandPass2 @ Flat Lake | 4/6/2011 | 29 | 376 | 322 | 7.19 | 5.72 | 17.7 | 10000 | 7040 | 1.43 | 86 |
| DogIslandPass @ River | 4/6/2011 | 97 | 363 | 298 | 7.61 | 8.33 | 13.77 | 2000 | 1200 | 1.74 | 7 |
| AmericanPass | 4/6/2011 | 80 | 337 | 300 | 7.59 | 8.3 | 13.86 | 470 | 1300 | 0.36 | 335 |
| 21inch2 @ River | 4/6/2011 | 80 | 397 | 299 | 7.62 | 8.35 | 13.77 | 1900 | 960 | 2 | 42 |
| ThibideauxChute @ river | 4/6/2011 | | | | | | | 0 | | 0 | 0 |
| Wellhead | 4/6/2011 | 86 | 391 | 298 | 7.66 | 8.38 | 13.61 | 1800 | 760 | 2.4 | 5 |
| DogLeg | 4/6/2011 | 88 | 247 | 298 | 7.76 | 8.35 | 13.6 | 780 | 530 | 1.95 | 55 |
| texaco@river | 4/6/2011 | 80 | 215 | 298 | 7.67 | 8.53 | 13.5 | 540 | 237 | 2.34 | 56 |
| Bluepointchute | 4/6/2011 | 75 | 211 | 300 | 7.67 | 8.54 | 13.68 | 6300 | 2400 | 2.63 | 355 |
| Bluepoint2 | 4/6/2011 | 78 | 239 | 300 | 7.73 | 8.32 | 13.94 | 4300 | 2300 | 1.89 | 101 |
| blue point 3 | 4/6/2011 | 85 | 374 | 300 | 7.68 | 8.45 | 13.93 | 2200 | 1400 | 1.6 | 63 |
| Shellfield | 4/6/2011 | 10 | | 337 | 7.21 | 4.57 | 19.49 | 440 | 1600 | 0.31 | 52 |
| LittleByuSorrel @ GIWW | 4/6/2011 | 2.8 | 62 | 351 | 7.06 | 3.05 | 22 | 860 | 2700 | 0.32 | 65 |
| ByuGrosbeck | 4/6/2011 | 3.6 | | 354 | 7.12 | 4.49 | 21.22 | | 334 | 0.08 | 180 |
| ByuLong @ flat lake | 4/7/2011 | 39 | 73 | 326 | 7.03 | 5.25 | 17.93 | 7700 | 5000 | 1.54 | 211 |
| GIWW2 | 4/7/2011 | 34 | 76 | 324 | 7.1 | 5.66 | 17.61 | 12000 | 8500 | 1.38 | 182 |
| GIWW3 | 4/7/2011 | 25 | 49 | 328 | 7.16 | 5.74 | 18.04 | 12000 | 8900 | 1.35 | 260 |
| FlatLakeS | 4/7/2011 | 15 | 77 | 340 | 7.05 | 4.03 | 19.92 | 33000 | 20000 | 1.62 | 200 |
| GIWW@sorrel | 40301 | 40 | 89 | 371 | 7.38 | 5.04 | 21.7 | 12000 | 1.7 | 7400 | 113 |
| Cannon | 40301 | 68 | 116 | 395 | 7.81 | 7.6 | 20.92 | 390 | 0.75 | 620 | 179 |
| Jakes_Byu | 40301 | 37 | 82 | 397 | 7.91 | 7.53 | 21 | 1030 | 0.98 | 1140 | 113 |
| Unnamed_Byu | 40301 | 33 | 110 | 402 | 7.89 | 7.45 | 21.07 | 360 | 0.51 | 740 | 177 |
| Sorrel_@_Atchafalaya | 40301 | 67 | 174 | 399 | 7.89 | 7.49 | 20.83 | 4860 | 1.2 | 4230 | 43 |
| Byu_Indigo | 40301 | 70 | 125 | 397 | 7.95 | 7.34 | 21.1 | 640 | 1.1 | 640 | 83 |
| Bee_Byu | 40301 | 8 | 53 | 398 | 7.28 | 2.43 | 24.73 | 159 | 0.45 | 370 | 259 |
| GIWWN_of_Old_River | 40302 | 28 | 101 | 383 | 7.39 | 5.13 | 22.81 | 8000 | 1.5 | 5700 | 181 |
| Old_River | 40302 | 6 | 32 | 389 | 7.08 | 1.68 | 25.5 | 4900 | 0.81 | 6830 | 112 |
| Byu_Long | 40302 | 5 | 35 | 392 | 7.07 | 1.79 | 25.77 | 750 | 0.5 | 1700 | 183 |
| 21_inch | 40302 | 41 | 92 | 384 | 7.22 | 4.08 | 23.66 | 275 | 0.53 | 560 | 212 |
| Little_byu_long | 40303 | 14 | 43 | 404 | 7.98 | 9.71 | 26.93 | 530 | 0.54 | 1060 | 86 |
| stream | 40303 | 10 | 36 | 412 | 7.69 | 8.04 | 27.78 | | 0.32 | 720 | 35 |
| Big_Byu_Pigeon | 40303 | 3 | 32 | 388 | 6.87 | 1.23 | 25.18 | 790 | 0.4 | 2200 | 200 |
| Pigeon_cutoff | 40303 | 3 | 36 | 386 | 7.05 | 1.39 | 24.68 | 370 | 0.93 | 450 | 248 |
| Little_Byu_Pigeon-@_E_Grand_L | 40303 | 2 | | 371 | 7.06 | 0.64 | 24.09 | 0 | 0 | | 0 |
| Hog_island_pass_W_side | 40303 | 26 | 66 | 436 | 7.59 | 6.3 | 26.2 | | 0.23 | 3500 | 209 |
| Hog_island_pass_E_side | 40303 | | | | | | | | 0.07 | 2900 | 260 |
| keelboatPass | 40303 | 29 | 65 | 422 | 7.52 | 5.38 | 23.79 | 538 | 0.66 | 920 | 217 |
| TexasPipeline | 40303 | 7 | 49 | 409 | 7.19 | 1.45 | 25.63 | | 0.17 | 310 | 73 |
| InteriorCirculation | 40303 | 31 | 73 | 420 | 7.42 | 4.06 | 26.55 | 540 | 0.63 | 930 | 40 |
| Thibideaux@Schwing | 40303 | 17 | 61 | 440 | 7.68 | 7.57 | 28.48 | | 0.04 | 1060 | 12 |

| Location | Date | Turb. (NTU) | TSS (mg/L) | EC (µS/cm) | pH (s.u.) | DO (mg/L) | Temp (ºC) | Discharge ($ft^3$/sec) | Area ($ft^2$) | Velocity (ft/sec) | Direction (º) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Interior1 | 40303 | | 69 | | | | | | 0.04 | 700 | 90 |
| Interior2 | 40303 | 62 | 43 | 413 | 7.35 | 3.7 | 26.71 | | 0.62 | 710 | 90 |
| 16inch | 40302 | 96 | 96 | 384 | 7.2 | 4.6 | 23.62 | 125 | 1.25 | 120 | 181 |
| Shellfield | 40305 | 27 | 78 | 419 | 7.56 | 5.06 | 23.9 | 380 | 0.25 | 230 | 1820 |
| LittleByuSorrel | 40305 | 2 | 42 | 398 | 7.12 | 1.57 | 26.33 | 880 | 0.42 | 2300 | 68 |
| ByuGrosbeck | 40305 | 25 | 122 | 414 | 7.45 | 4.55 | 24.64 | 90 | 0.64 | 170 | 328 |
| ByuLong | 40305 | 30 | 97 | 415 | 7.46 | 4.87 | 24.3 | 3400 | 0.75 | 4900 | 211 |
| GIWW2 | 40305 | 47 | 111 | 416 | 7.49 | 5.09 | 24.2 | 6000 | 1.1 | 6340 | 182 |
| GIWW3 | 40305 | 40 | | 412 | 7.45 | 4.89 | 24.37 | 5100 | 0.69 | 7900 | 260 |
| FlatLakeS | 40305 | 30 | 53 | 403 | 7.49 | 5.75 | 25.11 | 11000 | 0.6 | 20000 | 200 |
| DogIslandPass2 | 40304 | 23 | 69 | 409 | 7.22 | 3.21 | 26.15 | 5200 | 0.89 | 6560 | 86 |
| BearByu | 40304 | 4 | 27 | 408 | 7.27 | 3.77 | 29.02 | 200 | 0.07 | 3400 | 183 |
| FlatLakeX | 40304 | 38 | | 397 | 7.14 | 3.43 | | | 0.33 | | 157 |
| FlatLakeX | 40304 | 26 | | 398 | 7.08 | 3.56 | 24.85 | | 0.51 | | 164 |
| FlatLakeX | 40304 | 18 | | 405 | 7.08 | 3.75 | 25.6 | | 0.8 | | 97 |
| FlatLakeX | 40304 | 2 | | 392 | 6.89 | 2 | 27.07 | | 0.38 | | 78 |
| FlatLakeX | 40304 | 15 | | 416 | 7.08 | 3.77 | 26.35 | | 0 | | 0 |
| FlatLakeX | 40304 | 20 | | 409 | 7.07 | 3.51 | 25.53 | | 0 | | 0 |
| FlatLakeX | 40304 | 26 | | 407 | 7.04 | 3.09 | 25.4 | | 0.99 | | 112 |
| FlatLakeX | 40304 | 20 | | 403 | 7.03 | 2.8 | 25.7 | | 0.8 | | 120 |
| DogIslandPass | 40304 | 69 | 194 | 426 | 7.92 | 7.21 | 22.09 | 1038 | 1.3 | 870 | 12 |
| AmericanPass | 40304 | 31 | 51 | 421 | 7.41 | 4.91 | 26.58 | 223 | 0.26 | 960 | 153 |
| 21inch2 | 40304 | 58 | 143 | 425 | 8.08 | 7.69 | 21.56 | 1034 | 1.32 | 840 | 42 |
| ThibideauxChute | 40304 | | | | | | | 0 | 0 | | |
| Wellhead | 40304 | 68 | 144 | 425 | 8.08 | 7.69 | 21.74 | 270 | 0.61 | 540 | 7 |
| DogLeg | 40304 | 47 | 116 | 427 | 8.11 | 7.81 | 21.84 | 23 | 0.27 | 150 | 50 |
| Bluepointchute | 40304 | 63 | 155 | 426 | 8.11 | 7.76 | 21.77 | 1900 | 1 | 1870 | 355 |
| Bluepoint2 | 40304 | 44 | 91 | 432 | 8.14 | 7.86 | 22.34 | 1700 | 1.1 | 1700 | 101 |
| LittleByuLong | 40304 | 70 | 148 | 435 | 8.14 | 7.95 | 22.53 | 960 | 1.43 | 820 | 62 |
| Crosscanal | 40301 | 29 | 87 | 411 | 7.76 | 6.52 | 23.42 | 410 | 0.61 | 700 | 109 |
| ByuPostillion | 40302 | 40 | 99 | 383 | 7.47 | 5.14 | 22.8 | 780 | 0.75 | 1160 | 298 |
| Williamscanal | 40301 | 40 | 91 | 386 | 7.62 | 6.12 | 22.63 | 110 | 0.51 | 230 | 267 |
| Byupigeon | 40301 | 33 | 56 | 382 | 7.57 | 5.99 | 22.22 | 2244 | 1.2 | 1900 | 287 |
| ByuBigpigeon | 40301 | 51 | 100 | 387 | 7.63 | 5.82 | 22.5 | 283 | 0.85 | 350 | 162 |
| LittlePigeon1 | 40301 | 38 | 89 | 389 | 7.61 | 5.8 | 22.73 | 2030 | 1.3 | 1770 | 237 |
| LittlePigeon2 | 40301 | 36 | 81 | 385 | 7.64 | 6.03 | 22.38 | 1380 | 1.1 | 1380 | 215 |
| Bigpigeondown | 40301 | 6 | 41 | 389 | 7.33 | 2.71 | 25.99 | 146 | 0.15 | 1150 | 179 |
| Bigpigeond2rb | 40301 | | | | | | | 55 | 1.1 | 59 | 225 |
| BigPigeond3rb | 40301 | | | | | | | 23 | 0.16 | 170 | 131 |
| Byupostilliondown | 40302 | 50 | 69 | 393 | 7.5 | 5.37 | 23.91 | 991 | 0.86 | 1260 | 283 |
| GIWW@sorrel | 5/30/2011 | 18 | 25 | 240 | 6.91 | 2.98 | 24.6 | 25700 | 10500 | 2.58 | 124 |
| Cannon | 5/30/2011 | 11 | 4 | 234 | 6.88 | 2.06 | 24.3 | 2742 | 1340 | 2.35 | 167 |
| Jakes_Byu | 5/30/2011 | 8 | 8 | 238 | 6.93 | 1.42 | 24.5 | 4300 | 2450 | 2.02 | 126 |
| Unnamed_Byu | 5/30/2011 | 74 | 92 | 237 | 7.29 | 5.19 | 23.3 | 6700 | 2530 | 3.05 | 174 |
| Sorrel_@_Atchafalaya | 5/30/2011 | 78 | 126 | 236 | 7.29 | 5.68 | 23.1 | 11370 | 7390 | 1.76 | 46 |
| Coon_Trap | 5/30/2011 | 89 | 162 | 236 | 7.34 | 5.63 | 23.2 | 6050 | 3100 | 2.21 | 109 |
| Byu_Indigo | 5/30/2011 | 9 | 9 | 231 | 6.92 | 1.66 | 23.8 | 3500 | 2600 | 1.70 | 140 |
| Bee_Byu | 5/30/2011 | 34 | 27 | 239 | 7.18 | 4.34 | 23.2 | 310 | 1870 | 0.25 | 152 |
| Crosscanal | 5/30/2011 | 12 | 7 | 234 | 7.01 | 2.73 | 24.4 | 1160 | 2260 | 0.56 | 125 |

| Location | Date | Turb. (NTU) | TSS (mg/L) | EC (µS/cm) | pH (s.u.) | DO (mg/L) | Temp (ºC) | Discharge ($ft^3$/sec) | Area ($ft^2$) | Velocity (ft/sec) | Direction (º) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| crossbyu2 @ Lbyu pigeon | 5/30/2011 | 11 | 17 | 233 | 7.01 | 2.14 | 24.3 | 2660 | 2269 | 1.24 | 140 |
| Little Pigeon 1 | 5/30/2011 | 12 | 7 | 234 | 7.01 | 2.59 | 24.5 | 660 | 3900 | 0.28 | 193 |
| LittlePigeon2 | 5/30/2011 | 11 | 9 | 233 | 6.98 | 2.12 | 24.4 | 2270 | 3500 | 0.75 | 206 |
| Byupigeon | 5/30/2011 | 5 | 5 | 237 | 6.94 | 1.70 | 25.3 | 1410 | 4070 | 0.36 | 126 |
| ByuBigpigeon | 5/30/2011 | 9 | 6 | 235 | 7.02 | 2.55 | 24.9 | 1190 | 1460 | 0.96 | 160 |
| ByuPostillion | 5/30/2011 | 11 | 9 | 239 | 7.01 | 2.13 | 25.2 | 1200 | 3400 | 0.46 | 136 |
| 16inch | 5/31/2011 | 21 | 23 | 240 | 6.88 | 2.08 | 25.2 | 360 | 1887 | 0.29 | 150 |
| SondraThompsoncanal | 5/31/2011 | 23 | 38 | 240 | 6.90 | 1.96 | 25.3 | 1460 | 2260 | 0.72 | 59 |
| GIWWN_of_Old_River | 5/31/2011 | 19 |  | 242 | 6.98 | 2.42 | 25.2 | 28800 | 10500 | 2.91 | 181 |
| Old_River | 5/31/2011 | 5 | 9 | 237 | 6.86 | 1.42 | 25.4 | 16300 | 13200 | 1.43 | 133 |
| Byu_Long@OldRiver | 5/31/2011 | 6 | 5 | 236 | 6.89 | 1.55 | 25.4 | 3000 | 3800 | 0.95 | 175 |
| 21_inch@GIWW | 5/31/2011 | 10 | 12 | 239 | 6.93 | 1.83 | 25.4 | 340 | 1600 | 0.26 | 180 |
| Little_byu_long@EGL | 5/31/2011 | 59 | 55 | 239 | 7.28 | 4.93 | 23.7 | 4386 | 3050 | 1.53 | 89 |
| stream | 5/31/2011 | 27 | 20 | 241 | 7.15 | 4.00 | 23.8 | 130 | 1790 | 0.09 | 80 |
| Big_Byu_Pigeon@EGL | 5/31/2011 | 23 | 13 | 239 | 7.12 | 3.58 | 23.6 | 2900 | 4500 | 0.71 | 182 |
| Pigeon_cutoff | 5/31/2011 | 29 | 19 | 242 | 7.22 | 4.29 | 24.0 | 51 | 1524 | 0.04 | 120 |
| Little_Byu_Pigeon-@_E_Grand_L | 5/31/2011 | 33 | 22 | 241 | 7.22 | 4.21 | 23.8 | 125 | 702 | 0.25 | 120 |
| Hog_island_pass_W_side | 5/31/2011 | 54 | 47 | 240 | 7.35 | 5.55 | 23.6 | 13000 | 13200 | 1.03 | 169 |
| Hog_island_pass_E_side | 5/31/2011 |  |  |  |  |  |  | 6100 | 9700 | 0.80 | 183 |
| keelboatPass | 5/31/2011 | 52 | 39 | 239 | 7.36 | 5.61 | 23.5 | 940 | 2300 | 0.44 | 200 |
| Texacopipeline@EGL | 5/31/2011 | 51 | 35 | 241 | 7.38 | 5.62 | 23.9 | 160 | 1000 | 0.27 | 87 |
| ThibadeauxN | 5/31/2011 | 31 | 19 | 242 | 7.17 | 3.68 | 24.1 | 1660 | 2440 | 0.82 | 103 |
| ThibadeauxS | 5/31/2011 | 27 | 17 | 241 | 7.13 | 3.38 | 24.0 | 850 | 2060 | 0.49 | 190 |
| Interior1 | 5/31/2011 | 43 | 28 | 241 | 7.29 | 4.81 | 23.9 | 5140 | 2900 | 2.10 | 164 |
| InteriorCirculation | 5/31/2011 | 50 | 41 | 240 | 7.35 | 5.16 | 23.9 | 1800 | 2800 | 0.74 | 196 |
| FlatLakeX | 6/1/2011 | 23 |  | 241 | 6.88 | 2.52 | 25.7 |  |  | 1.75 | 200 |
| FlatLakeX | 6/1/2011 | 2 |  | 237 | 6.83 | 2.31 | 25.7 |  |  | 1.07 | 212 |
| FlatLakeX | 6/1/2011 | 1 |  | 239 | 6.87 | 2.44 | 26.0 |  |  | 0.44 | 197 |
| FlatLakeX | 6/1/2011 | 2 |  | 238 | 6.86 | 2.35 | 25.9 |  |  | 2.08 | 161 |
| FlatLakeX | 6/1/2011 | 2 |  | 243 | 6.86 | 2.03 | 26.1 |  |  | 1.28 | 142 |
| FlatLakeX | 6/1/2011 | 6 |  | 251 | 6.89 | 1.48 | 25.2 |  |  | 1.90 | 125 |
| FlatLakeX | 6/1/2011 | 9 |  | 249 | 6.90 | 1.74 | 25.2 |  |  | 1.33 | 117 |
| FlatLakeX | 6/1/2011 |  |  |  |  |  |  |  |  | 1.03 | 115 |
| FlatlakeXtotal | 6/1/2011 |  |  |  |  |  |  | 128000 |  | 1.40 | 160 |
| BearByu | 6/1/2011 | 3 | 9 | 239 | 6.87 | 1.57 | 25.9 | 13200 | 6340 | 2.24 | 178 |
| BigBayouJessienrFlatLake | 6/1/2011 | 7 | 7 | 249 | 6.91 | 1.61 | 25.1 | 6000 | 4380 | 1.71 | 156 |
| DogIslandPass2@Flat Lake | 6/1/2011 | 14 | 13 | 246 | 6.97 | 2.07 | 24.6 | 23800 | 10900 | 2.59 | 81 |
| DogIslandPass@River | 6/1/2011 | 31 | 7 | 245 | 7.17 | 4.27 | 24.4 | 4570 | 3040 | 1.94 | 190 |
| AmericanPass | 6/1/2011 | 44 | 66 | 244 | 7.22 | 4.56 | 24.3 | 9300 | 4160 | 2.53 | 145 |
| Bluepointchute | 6/1/2011 | 24 | 17 | 245 | 7.12 | 3.05 | 24.6 | 4200 | 4160 | 1.04 | 178 |
| Bluepoint2 | 6/1/2011 | 41 | 31 | 242 | 7.30 | 4.69 | 24.1 | 1580 | 3600 | 0.45 | 110 |
| bluepoint3 | 6/1/2011 | 44 | 34 | 242 | 7.30 | 4.97 | 24.0 | 700 | 1720 | 0.46 | 100 |
| LittleByuLong | 6/1/2011 |  |  |  |  |  |  |  | 1200 | 0.35 | 173 |
| Shellfield | 6/1/2011 | 12 | 9 | 244 | 7.03 | 2.51 | 26.0 | 450 | 5451 | 0.26 | 147 |
| LittleByuSorrel@GIWW | 6/1/2011 | 3 | 2 | 240 | 7.00 | 2.39 | 26.3 | 300 | 4350 | 0.13 | 128 |
| ByuGrosbeck | 6/2/2011 | 3 | 2 | 240 | 6.78 | 2.14 | 26.2 | 390 | 1080 | 0.49 | 153 |
| ByuLong@flatlake | 6/2/2011 | 42 | 102 | 245 | 6.88 | 2.33 | 26.0 | 10800 | 6700 | 1.83 | 314 |
| GIWW2 | 6/2/2011 | 63 | 124 | 246 | 6.93 | 2.32 | 25.9 | 30500 | 14000 | 2.50 | 177 |
| GIWW3 | 6/2/2011 | 32 | 61 | 247 | 6.95 | 2.53 | 26.0 | 38300 | 12900 | 3.29 | 261 |

| Location | Date | Turb. (NTU) | TSS (mg/L) | EC (µS/cm) | pH (s.u.) | DO (mg/L) | Temp (ºC) | Discharge ($ft^3$/sec) | Area ($ft^2$) | Velocity (ft/sec) | Direction (º) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FlatLakeS | 6/2/2011 | 4 | 13 | 244 | 6.88 | 1.81 | 26.4 | 105000 | 28000 | 4.07 | 204 |
| workcanal | 5/30/2011 | 11 | 10 | 234 | 6.93 | 2.16 | 23.9 | 4160 | 2130 | 2.32 | 130 |
| uppergrand@giww | 5/30/2011 | 12 | 11 | 240 | 6.95 | 2.65 | 24.4 | 16700 | 6070 | 3.08 | 94 |
| Grand@ATch | 5/30/2011 | 78 | 119 | 236 | 7.26 | 5.65 | 23.1 | 3000 | 8100 | 0.34 | 99 |
| giwwNofgrand | 5/30/2011 | | | | | | | 7100 | 2300 | 3.59 | 145 |
| grosbeck2 | 6/2/2011 | | | | | | | | 2610 | 0.86 | 180 |
| oilcanalnofOr | 5/31/2011 | | | | | | | | 3330 | 0.31 | 104 |
| MiddleForkbyulong | 5/31/2011 | 17 | 11 | 243 | 7.04 | 3.05 | 23.8 | 2900 | 5500 | 0.82 | 177 |
| litlsorrel@american | 6/1/2011 | | | | | | | | 3400 | 0.23 | 89 |
| flgasEofkeelboat | 5/30/2011 | | | | | | | | 1690 | 0.28 | 107 |
| bigjoe | 6/1/2011 | | | | | | | | 4700 | 0.87 | 156 |
| bigFork | 6/1/2011 | 3 | 0 | 238 | 6.95 | 1.25 | 25.7 | 6600 | 6090 | 1.29 | 140 |
| BA38pipeline_off_spice_island_chute | 6/1/2011 | | | | | | | 3520 | 1770 | 1.99 | 265 |
| BA13_sandhill_cut | 6/1/2011 | | | | | | | 540 | 1110 | 0.49 | 124 |
| BA40_diversion_9.1 | 6/1/2011 | | | | | | | 88 | 1000 | 0.09 | 150 |
| BA19Wanda_Canal_at_Phillips | 6/1/2011 | | | | | | | 1010 | 1300 | 0.78 | 150 |
| BA05WandaEof_element_15 | 6/1/2011 | | | | | | | 65 | 860 | 0.08 | 180 |
| BA04Element15 | 6/1/2011 | | | | | | | 6600 | 2050 | 3.20 | 140 |
| BA01Florida_Gas_W | 6/1/2011 | | | | | | | 1900 | 960 | 1.98 | 70 |
| BA03Eugene_at_gage | 6/1/2011 | | | | | | | 1750 | 1360 | 1.29 | 190 |
| BA39Darby | 6/1/2011 | | | | | | | 1880 | 2460 | 0.77 | 180 |
| BA06Canal_into _Jackass_Bay | 6/1/2011 | | | | | | | 514 | 860 | 0.60 | 50 |
| BA11PipelineoffPonchoChute | 6/2/2011 | | | | | | | 5 | 260 | 0.01 | 175 |
| BA09Buffalo_Cove | 6/2/2011 | | | | | | | 1480 | 2150 | 0.69 | 200 |
| BA17Eugene_S_of_Sibon | 6/2/2011 | | | | | | | 84 | 930 | 0.09 | 75 |
| BA08Sibon_off_GA | 6/2/2011 | | | | | | | 88 | 901 | 0.10 | 176 |
| BA07Tyler_cut | 6/2/2011 | | | | | | | 0 | 1643 | 0.00 | 138 |
| BA25Chene_closure | 6/1/2011 | | | | | | | 1910 | 2050 | 0.99 | 114 |
| BA15Bee_Hive | 6/1/2011 | | | | | | | 24800 | 8290 | 3.25 | 151 |
| BA36Atchafalaya_nr_Myette_pt | 6/2/2011 | | | | | | | 343000 | 74800 | 4.89 | 143 |
| BA33Chicot_nr_Myette | 6/2/2011 | | | | | | | 41300 | 18630 | 2.35 | 123 |
| BA34Dist_off_Atch_S_of_Myette | 6/2/2011 | | | | | | | 27000 | 16700 | 1.97 | 167 |
| BA20Grnd_Byu_Wof_Lk_Fausse_ | 6/1/2011 | | | | | | | 3520 | 2690 | 1.44 | 207 |
| BA26Lk_F_Pt_Ct_Abv_Buff_Cove | 6/1/2011 | | | | | | | 36800 | 12700 | 3.05 | 151 |
| BA27Lower_Lk_long | 6/1/2011 | | | | | | | 42800 | 15600 | 2.83 | 159 |
| BA21lkfausseptcut | 6/1/2011 | | | | | | | 19500 | 9040 | 2.29 | 154 |
| BA23Atchafalaya | 6/1/2011 | | | | | | | 478000 | 82100 | 6.11 | 186 |
| BA10Ponchochute | 6/1/2011 | | | | | | | 540 | 1790 | 0.34 | 107 |
| BA14PonchoS | 6/2/2011 | | | | | | | 1040 | 2670 | 0.43 | 213 |
| BA18Phillips_at_atch | 6/1/2011 | | | | | | | 4400 | 2000 | 2.39 | 270 |
| BA28Rangeline2E | 6/2/2011 | | | | | | | 8720 | 5150 | 1.80 | 146 |
| BA29Rangeline2W | 6/2/2011 | | | | | | | 18300 | 9840 | 1.88 | 145 |
| BA31Rangeline3center | 6/2/2011 | | | | | | | 19210 | 8180 | 2.41 | 115 |
| BA30Rangeline3E | 6/2/2011 | | | | | | | 12900 | 6600 | 2.02 | 113 |
| BA32Rangeline3W | 6/2/2011 | | | | | | | 1650 | 1600 | 1.18 | 146 |
| BA22WestAccess | 6/1/2011 | | | | | | | 2650 | 2870 | 0.99 | 223 |
| BA24WestAccessatMain | 6/1/2011 | | | | | | | 17400 | 4300 | 4.51 | 217 |
| BA16LkFaussePt_Cut | 6/1/2011 | | | | | | | 15400 | 5820 | 2.80 | 199 |
| Atchafalaya_at_simmesport | 5/26/2011 | | | | | | | 670000 | 115000 | 5.80 | 173 |

| Location | Date | Turb. (NTU) | TSS (mg/L) | EC (µS/cm) | pH (s.u.) | DO (mg/L) | Temp (ºC) | Discharge ($ft^3$/sec) | Area ($ft^2$) | Velocity (ft/sec) | Direction (º) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Morganza_at_190 | 5/26/2011 | | | | | | | 164000 | 276000 | 0.59 | 170 |
| Atchafalaya_at_Morgancity | 6/1/2011 | | | | | | | 478000 | 76000 | 6.28 | 150 |
| Wax Lake Outlet | 6/1/2011 | | | | | | | 309000 | 40900 | 7.89 | 197 |
| GIWW@sorrel | 11/7/2011 | | | | | | | 4941 | 5312 | 0.96 | 122 |
| oilfieldoutlet@sorrel | 11/9/2011 | | | | | | | 37 | 838 | 0.05 | 96 |
| GIWWNofsorrel | 11/9/2011 | | | | | | | 2353 | 2455 | 0.99 | 133 |
| Sorrel @GIWW | 11/9/2011 | | | | | | | 2860 | 2739 | 1.08 | 46 |
| Cannon | 11/7/2011 | | | | | | | 23 | 397 | 0.05 | 218 |
| Jakes_Byu | 11/7/2011 | | | | | | | 169 | 549 | 0.34 | 122 |
| Unnamed_Byu | 11/7/2011 | | | | | | | 41 | 550 | 0.06 | 158 |
| Sorrel_@_Atchafalaya | 11/7/2011 | | | | | | | 2716 | 2942 | 0.98 | 41 |
| Byu_Indigo | 11/7/2011 | | | | | | | 132 | 307 | 0.48 | 72 |
| Crosscanal | 11/7/2011 | | | | | | | 182 | 423 | 0.46 | 113 |
| crossbyu2 @ Lbyu pigeon | 11/7/2011 | | | | | | | 145 | 282 | 0.61 | 141 |
| Little Pigeon 1 | 11/7/2011 | | | | | | | 380 | 1040 | 0.4 | 245 |
| LittlePigeon2 | 11/7/2011 | | | | | | | 607 | 813 | 0.86 | 220 |
| Byupigeon | 11/7/2011 | | | | | | | 438 | 1232 | 0.37 | 285 |
| ByuPostillion | 11/8/2011 | | | | | | | 352 | 1042 | 0.37 | 292 |
| GIWWN_of_Old_River | 11/8/2011 | | | | | | | 4444 | 5158 | 0.94 | 182 |
| GIWWSofOR | 11/8/2011 | | | | | | | 5185 | 6812 | 0.83 | 141 |
| Old_River | 11/8/2011 | | | | | | | 622 | 6368 | 0.13 | 129 |
| Byu_Long@OldRiver | 11/9/2011 | | | | | | | 28 | 1334 | 0.04 | 196 |
| BearByu | 11/8/2011 | | | | | | | 870 | 2975 | 0.31 | 11 |
| DogIslandPass2@Flat Lake | 11/8/2011 | | | | | | | 2120 | 6781 | 0.36 | 260 |
| DogIslandPass@River | 11/8/2011 | | | | | | | 1150 | 744 | 1.68 | 8 |
| AmericanPass | 11/8/2011 | | | | | | | 1760 | 1412 | 1.34 | 333 |
| Bluepointchute | 11/8/2011 | | | | | | | 614 | 1164 | 0.56 | 358 |
| Bluepoint2 | 11/8/2011 | | | | | | | 482 | 1047 | 0.49 | 100 |
| bluepoint3 | 11/8/2011 | | | | | | | 254 | 325 | 0.84 | 64 |
| LittleByuSorrel@GIWW | 11/8/2011 | | | | | | | 960 | 2191 | 0.47 | 64 |
| ByuLong@flatlake | 11/8/2011 | | | | | | | 1220 | 4646 | 0.28 | 207 |
| GIWW2 | 11/9/2011 | | | | | | | 4320 | 7061 | 0.62 | 176 |
| GIWW3 | 11/9/2011 | | | | | | | 2820 | 7408 | 0.4 | 262 |
| FlatLakeS | 11/9/2011 | | | | | | | 7660 | 18048 | 0.46 | 15 |
| bigFork | 11/8/2011 | | | | | | | 1480 | 3021 | 0.56 | 120 |
| WGIWWSofLBS | 11/9/2011 | | | | | | | 2740 | 5076 | 0.55 | 189 |
| EGIWWSofLBS | 11/9/2011 | | | | | | | 4120 | 6250 | 0.71 | 183 |
| GIWWSofpigeon | 11/9/2011 | | | | | | | 4880 | 4546 | 1.14 | 110 |
| GIWWNofpigeon | 11/9/2011 | | | | | | | 5400 | 6611 | 0.85 | 182 |
| 21inch2 | 11/8/2011 | | | | | | | 513 | 474 | 1.2 | 50 |

## Table B2. Field parameter data collected by the USGS

| Site ID | Lat | Lon | Date | Site Description | Top EC (µS/cm) | Top sal (ppt) | Top Temp ( C) | Top Turb (NTU) | Top pH (su) | Top DO (mg/L) | Top Chl A (mg/L) | Mid EC (µS/cm) | Mid sal (ppt) | Mid Temp ( C) | Mid Turb (NTU) | Mid pH (su) | Mid DO (mg/L) | Bot EC (µS/cm) | Bot sal (ppt) | Bot Temp ( C) | Bot Turb (NTU) | Bot pH (su) | Bot DO (mg/L) | Bot Chl A (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 26 | 30.06105 | -91.5934 | 5/19/2011 | GA Cut at Grand Bayou | 283 | 0.1 | 20.2 | | | 5.1 | | | | | | | | | | | | | | |
| 27 | 30.08367 | -91.6188 | 5/19/2011 | Bayou Benoit Boat Launch | 280 | 0.1 | 21 | | | 5.44 | | | | | | | | | | | | | | |
| 28 | 29.99322 | -91.523 | 5/19/2011 | Buffalo Cove | 284 | 0.1 | 20.3 | | | 4.9 | | | | | | | | | | | | | | |
| 29 | 29.98093 | -91.5346 | 5/19/2011 | GA Cut At Buffalo Cove | 319 | 0.2 | 21.6 | | | 1.94 | | | | | | | | | | | | | | |
| 30 | 29.89065 | -91.4589 | 5/19/2011 | Grand Bayou | 289 | 0.1 | 21.3 | | | 4.14 | | | | | | | | | | | | | | |
| 37 | 29.82783 | -91.0138 | 5/19/2011 | Blue Point Chute | | | | | | | | | | | | | | | | | | | | |
| 101 | 29.90158 | -91.4852 | 5/19/2011 | Grand Lake | 288 | 0.1 | 21.1 | | | 4.02 | | | | | | | | | | | | | | |
| 102 | 29.82292 | -91.3798 | 5/19/2011 | Grand Lake Channel | 288 | 0.1 | 20.9 | | | 4.51 | | | | | | | | | | | | | | |
| 1 | 30.1185 | -91.4726 | 5/19/2011 | Sorrel at Atchafalaya | 271 | | 19.6 | 177 | 7.32 | 5.46 | | 272 | | 19.6 | 175 | 7.32 | 5.46 | 272 | | 19.59 | 179 | 7.32 | 5.45 | |
| 2 | 30.16289 | -91.3573 | 5/19/2011 | GIWW at Bayou Sorrel | 292 | | 20.3 | 22 | 6.8 | 2.05 | | 291 | | 20.3 | 20 | 6.8 | 1.76 | 291 | | 20.32 | 23 | 6.8 | 1.72 | |
| 3 | 30.07817 | -91.3133 | 5/19/2011 | Byupigeon at GIWW | 301 | | 21.44 | 13 | 7.03 | 2.22 | | 296 | | 20.74 | 17 | 7.02 | 1.95 | 288 | | 20.28 | 38 | 7.09 | 2.41 | |
| 4 | 30.06625 | -91.3494 | 5/19/2011 | Bayou Pigeon near Big Pigeon | 294 | | 21.18 | 24 | 7.14 | 2.93 | | 293 | | 20.78 | 27 | 7.11 | 2.73 | 292 | | 20.73 | 27 | 7.11 | 2.67 | |
| 5 | 30.05731 | -91.3684 | 5/19/2011 | Cross Bayou at Little Bayou Pigeon | 277 | | 23.7 | 39 | 7.16 | 3.37 | | 276 | | 20.2 | 39 | 7.15 | 3.28 | 276 | | 20.21 | 39 | 7.15 | 3.25 | |
| 33 | 30.24058 | -91.5347 | 5/19/2011 | Grand River near Atch | 272 | | 19.6 | 177 | 7.31 | 5.5 | | 272 | | 19.55 | 174 | 7.3 | 5.46 | 272 | | 19.55 | 208 | 7.29 | 5.46 | |
| 34 | 30.23142 | -91.4276 | 5/19/2011 | GIWW S of Grand R. | 280 | | 19.94 | 79 | 6.98 | 2.91 | | 280 | | 19.89 | 81 | 6.99 | 2.94 | 275 | | 19.88 | 135 | 7 | 3.12 | |
| DK-1 | 30.08675 | -91.4361 | 5/19/2011 | East Grand Lake | 275 | | 20.01 | 76 | 7.36 | 5.26 | | | | | | | | | | | | | | |
| 1 | 30.1185 | -91.4726 | 5/26/2011 | Sorrel at Atchafalaya | 232 | | 21.77 | 106 | 7.31 | 5.7 | | 232 | | 21.75 | 110 | 7.3 | 5.62 | 232 | | 21.74 | 117 | 7.29 | 5.63 | |
| 1.5 | 30.10561 | -91.4169 | 5/26/2011 | Gas pipeline off Indigo | 232 | | 23.3 | 7.7 | 6.97 | 2.03 | | 232 | | 23.26 | 7.4 | 6.93 | 2.01 | 232 | | 23.25 | 7.6 | 6.93 | 2 | |
| 2 | 30.16289 | -91.3573 | 5/26/2011 | GIWW at Bayou Sorrel | 229 | | 23.8 | 16 | 6.84 | 2.22 | | 229 | | 23.8 | 18 | 6.83 | 2.23 | 228 | | 23.8 | 16 | 6.83 | 2.16 | |
| 3 | 30.07817 | -91.3133 | 5/26/2011 | Byupigeon at GIWW | 231 | | 24.4 | 4.1 | 6.88 | 1.27 | | 230 | | 24.4 | 4.3 | 6.88 | 1.23 | 230 | | 24.3 | 7 | 6.87 | 1.06 | |
| 4 | 30.06625 | -91.3494 | 5/26/2011 | Bayou Pigeon near Big Pigeon | 227 | | 23.92 | 6 | 6.94 | 1.86 | | 226 | | 23.84 | 6 | 6.91 | 1.78 | 226 | | 23.8 | 7 | 6.9 | 1.63 | |
| 5 | 30.05731 | -91.3684 | 5/26/2011 | Cross Bayou at Little Bayou Pigeon | 227 | | 23.61 | 7 | 6.93 | 1.75 | | 227 | | 23.57 | 7 | 6.91 | 1.73 | 226 | | 23.56 | 7 | 6.91 | 1.69 | |
| 34 | 30.23142 | -91.4276 | 5/26/2011 | GIWW S of Grand R. | 229 | | 23.68 | 21 | 6.93 | 2.97 | | 230 | | 23.77 | 27 | 6.94 | 3.14 | 230 | | 23.73 | 27 | 6.95 | 3.13 | |
| NE | 30.02772 | -91.4687 | 5/26/2011 | North end of East Grand Lake | 232 | | 21.9 | 80 | 7.32 | 5.6 | | 232 | | 21.88 | 77 | 7.32 | 5.59 | 232 | | 21.86 | 79 | 7.32 | 5.6 | |
| 3 | 30.07817 | -91.3133 | 6/2/2011 | Byupigeon at GIWW | 304 | | 25.59 | 1.5 | 7.05 | 1.71 | 3.7 | | | | | | | 303 | | 25.1 | 3.3 | 7.01 | 1.2 | 3.7 |
| 4 | 30.06625 | -91.3494 | 6/2/2011 | Bayou Pigeon near Big Pigeon | 302 | | 25.39 | 3.1 | 7.06 | 2.37 | 3.7 | | | | | | | 302 | | 24.94 | 7.2 | 7.06 | 2.1 | 4.1 |
| 5 | 30.05731 | -91.3684 | 6/2/2011 | Cross Bayou at Little Bayou Pigeon | 302 | | 24.99 | 4.4 | 7.07 | 2.23 | 4 | | | | | | | 302 | | 24.95 | 16.4 | 7.07 | 2.09 | 5.6 |
| NE | 30.02772 | -91.4687 | 6/2/2011 | North end of East Grand Lake | 311 | | 24.06 | 32.4 | 7.37 | 5.36 | 5.4 | | | | | | | 311 | | 24.06 | 74.2 | 7.36 | 5.29 | 10.7 |
| 26 | 30.06105 | -91.5934 | 6/9/2011 | GA Cut at Grand Bayou | 254.9 | 0.1 | 26 | 24.1 | | 5.36 | | | | | | | | | | | | | | |
| 27 | 30.08367 | -91.6188 | 6/9/2011 | Bayou Benoit Boat Launch | 300 | 0.1 | 27 | 7.59 | | 4.14 | | | | | | | | | | | | | | |
| 28 | 29.99322 | -91.523 | 6/9/2011 | Buffalo Cove | 299.3 | 0.1 | 26 | 6.06 | | 1.41 | | | | | | | | | | | | | | |
| 29 | 29.98093 | -91.5346 | 6/9/2011 | GA Cut At Buffalo Cove | 303.3 | 0.1 | 25.8 | 17 | | 4.53 | | | | | | | | | | | | | | |
| 30 | 29.89065 | -91.4589 | 6/9/2011 | Grand Bayou | 304.6 | 0.1 | 26 | 7.22 | | 2.46 | | | | | | | | | | | | | | |
| 101 | 29.90158 | -91.4852 | 6/9/2011 | Grand Lake | 304.5 | 0.1 | 25.9 | 9.93 | | 2.49 | | | | | | | | | | | | | | |

| Site ID | Lat | Lon | Date | Site Description | Top EC (µS/cm) | Top sal (ppt) | Top Temp ( C) | Top Turb (NTU) | Top pH (su) | Top DO (mg/L) | Top Chl A (mg/L) | Mid EC (µS/cm) | Mid sal (ppt) | Mid Temp ( C) | Mid Turb (NTU) | Mid pH (su) | Mid DO (mg/L) | Bot EC (µS/cm) | Bot sal (ppt) | Bot Temp ( C) | Bot Turb (NTU) | Bot pH (su) | Bot DO (mg/L) | Bot Chl A (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 102 | 29.82292 | -91.3798 | 6/9/2011 | Grand Lake Channel | 306.7 | 0.1 | 25.9 | 14.9 | | 3.38 | | | | | | | | | | | | | | |
| 1.5 | 30.10561 | -91.4169 | 6/9/2011 | Gas pipeline off Indigo | 268 | | 25.9 | 15 | 7.05 | 3.44 | | | | | | | | 267 | | 25.8 | 18 | 7.04 | 3.27 | |
| 2 | 30.16289 | -91.3573 | 6/9/2011 | GIWW at Bayou Sorrel | 274 | | 26.8 | 5 | 6.91 | 1.39 | | 273 | | 26.8 | 4 | 6.92 | 1.37 | 273 | | 26.8 | 10 | 6.91 | 1.36 | |
| 3 | 30.07817 | -91.3133 | 6/9/2011 | Byupigeon at GIWW | 270 | | 26.7 | 2.3 | 6.8 | 1.07 | | 270 | | 26.5 | 2 | 6.7 | 1.07 | 270 | | 26.6 | 2 | 6.7 | 0.84 | |
| 4 | 30.06625 | -91.3494 | 6/9/2011 | Bayou Pigeon near Big Pigeon | 264 | | 26.42 | 3 | 6.83 | 1.7 | | 263 | | 26.34 | 3 | 6.83 | 1.61 | 263 | | 26.32 | 4 | 6.84 | 1.58 | |
| 5 | 30.05731 | -91.3684 | 6/9/2011 | Cross Bayou at Little Bayou Pigeon | 261 | | 26.2 | 5 | 6.87 | 1.52 | | 261 | | 26.2 | 6 | 6.86 | 1.52 | 261 | | 26.2 | 6 | 6.87 | 1.51 | |
| 26 | 30.06105 | -91.5934 | 6/16/2011 | GA Cut at Grand Bayou | 321.1 | 0.2 | 27.5 | 16.6 | | 3.78 | | 337.6 | 0.2 | 27.5 | | | 3.78 | | | | | | | |
| 27 | 30.08367 | -91.6188 | 6/16/2011 | Bayou Benoit Boat Launch | 309 | 0.1 | 27 | 6.06 | | 3.88 | | 309 | 0.1 | 26.8 | | | 1.5 | | | | | | | |
| 28 | 29.99322 | -91.523 | 6/16/2011 | Buffalo Cove | 311.5 | 0.2 | 27.3 | 6.03 | | 1.65 | | 313 | 0.2 | 27.3 | | | 1.4 | | | | | | | |
| 29 | 29.98093 | -91.5346 | 6/16/2011 | GA Cut At Buffalo Cove | 315.7 | 0.2 | 27.5 | 18.8 | | 3.2 | | 315.7 | 0.2 | 27.5 | | | 3.1 | | | | | | | |
| 30 | 29.89065 | -91.4589 | 6/16/2011 | Grand Bayou | 312 | 0.2 | 27.8 | 5.72 | | 2.11 | | 314.5 | 0.2 | 27.4 | | | 2.72 | | | | | | | |
| 37 | 29.82783 | -91.0138 | 6/16/2011 | Blue Point Chute | 346.4 | 0.2 | 27.8 | 33.6 | | 4.71 | | 346.4 | 0.2 | 27.7 | | | 4.8 | | | | | | | |
| 101 | 29.90158 | -91.4852 | 6/16/2011 | Grand Lake | 318 | 0.2 | 27.6 | 15.06 | | 3.35 | | 318.8 | 0.2 | 27.5 | | | 3.36 | | | | | | | |
| 102 | 29.82292 | -91.3798 | 6/16/2011 | Grand Lake Channel | 345.9 | 0.2 | 27.6 | 29.9 | | 4.48 | | 346 | 0.2 | 27.6 | | | 4.68 | | | | | | | |
| 1 | 30.1185 | -91.4726 | 6/16/2011 | Sorrel at Atchafalaya | 451 | | 27.62 | 54 | 7.63 | 5.1 | | 460 | | 27.59 | 60 | 7.61 | 5.16 | | | | | | | |
| 3 | 30.07817 | -91.3133 | 6/16/2011 | Byupigeon at GIWW | 443 | | 27.55 | 58 | 7.59 | 5.06 | | 462 | | 27.52 | 57 | 7.58 | 5.05 | | | | | | | |
| 4 | 30.06625 | -91.3494 | 6/16/2011 | Bayou Pigeon near Big Pigeon | 405 | | 28.08 | 4 | 7.17 | 1.69 | | 421 | | 28.03 | 5 | 7.15 | 1.62 | 418 | | 28.02 | 6 | 7.15 | 1.6 | |
| 5 | 30.05731 | -91.3684 | 6/16/2011 | Cross Bayou at Little Bayou Pigeon | 422 | | 28.42 | 10 | 7.18 | 1.8 | | 439 | | 28.25 | 9 | 7.17 | 1.7 | 438 | | 28.25 | 8 | 7.18 | 1.69 | |
| 33 | 30.24058 | -91.5347 | 6/16/2011 | Grand River near Atch | 459 | | 27.56 | 48 | 7.61 | 5.03 | | 455 | | 27.51 | 59 | 7.57 | 5.02 | | | | | | | |
| 34 | 30.23142 | -91.4276 | 6/16/2011 | GIWW S of Grand R. | 456 | | 27.49 | 2 | 7.19 | 0.83 | | | | | | | | 406 | | 27.46 | 3 | 7.14 | 0.84 | |
| GR | 30.23683 | -91.5988 | 6/16/2011 | Grand River | 447 | | 27.71 | 34 | 7.55 | 4.78 | | 415 | | 27.35 | 38 | 7.51 | 4.51 | 419 | | 27.32 | 54 | 7.51 | 4.44 | |
| NE | 30.02772 | -91.4687 | 6/16/2011 | North end of East Grand Lake | 399 | | 27.61 | 53 | 7.58 | 4.98 | | | | | | | | 448 | | 27.56 | 55 | 7.58 | 4.98 | |
| 1 | 30.1185 | -91.4726 | 6/23/2011 | Sorrel at Atchafalaya | 520 | | 27.66 | 61 | 7.66 | 5.16 | | 523 | | 27.65 | 64 | 7.65 | 5.12 | | | | | | | |
| 2 | 30.16289 | -91.3573 | 6/23/2011 | GIWW at Bayou Sorrel | 485 | | 27.5 | 38 | 7.34 | 4.32 | | 502 | | 27.52 | 50 | 7.4 | 4.66 | 508 | | 27.55 | 60 | 7.44 | 4.68 | |
| 3 | 30.07817 | -91.3133 | 6/23/2011 | Byupigeon at GIWW | 480 | | 27.86 | 29 | 7.3 | 2.85 | | 480 | | 27.84 | 31 | 7.28 | 2.46 | 480 | | 27.83 | 33 | 7.28 | 2.43 | |
| 5 | 30.05731 | -91.3684 | 6/23/2011 | Cross Bayou at Little Bayou Pigeon | 438 | | 27.94 | 5 | 7.17 | 1.77 | | | | | | | | 450 | | 27.84 | 11 | 7.19 | 1.92 | |
| 33 | 30.24058 | -91.5347 | 6/23/2011 | Grand River near Atch | 514 | | 27.64 | 48 | 7.66 | 5.16 | | 523 | | 27.62 | 62 | 7.64 | 5.14 | | | | | | | |
| 34 | 30.23142 | -91.4276 | 6/23/2011 | GIWW S of Grand R. | 465 | | 28.01 | 7 | 7.06 | 1.4 | | 481 | | 27.68 | 23 | 7.18 | 2.18 | | | | | | | |
| GR | 30.23683 | -91.5988 | 6/23/2011 | Grand River | 519 | | 27.65 | 29 | 7.64 | 5.12 | | 519 | | 27.62 | 45 | 7.62 | 5.06 | 517 | | 27.61 | 79 | 7.61 | 4.98 | |
| NE | 30.02772 | -91.4687 | 6/23/2011 | North end of East Grand Lake | 498 | | 27.62 | 27 | 7.54 | 4.48 | | | | | | | | 500 | | 27.29 | 35 | 7.49 | 3.94 | |
| DK-2 | 30.02743 | -91.2884 | 6/23/2011 | Byu Stringer | 455 | | 27.84 | 2 | 7.04 | 0.93 | | | | | | | | 457 | | 27.83 | 3 | 7.04 | 0.87 | |
| 26 | 30.06105 | -91.5934 | 6/30/2011 | GA Cut at Grand Bayou | 374 | 0.2 | 27.9 | 31 | | 3.37 | | | 0.2 | 314.6 | 28.1 | | 3.4 | | | | | | | |
| 27 | 30.08367 | -91.6188 | 6/30/2011 | Bayou Benoit Boat Launch | 315 | 0.2 | 28.4 | 1.59 | | 3.32 | | | | | | | | | | | | | | |
| 28 | 29.99322 | -91.523 | 6/30/2011 | Buffalo Cove | 376.8 | 0.2 | 28 | 17.8 | | 3.05 | | | | | | | | | | | | | | |
| 29 | 29.98093 | -91.5346 | 6/30/2011 | GA Cut At Buffalo Cove | 378.4 | 0.2 | 28 | 15 | | 3.06 | | | | | | | | | | | | | | |
| 30 | 29.89065 | -91.4589 | 6/30/2011 | Grand Bayou | 365.7 | 0.2 | 29.7 | 6.3 | | 3.09 | | | 0.2 | 380.3 | 27.9 | | 3.34 | | | | | | | |

| Site ID | Lat | Lon | Date | Site Description | Top EC (µS/cm) | Top sal (ppt) | Top Temp ( C) | Top Turb (NTU) | Top pH (su) | Top DO (mg/L) | Top Chl A (mg/L) | Mid EC (µS/cm) | Mid sal (ppt) | Mid Temp ( C) | Mid Turb (NTU) | Mid pH (su) | Mid DO (mg/L) | Bot EC (µS/cm) | Bot sal (ppt) | Bot Temp ( C) | Bot Turb (NTU) | Bot pH (su) | Bot DO (mg/L) | Bot Chl A (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 37 | 29.82783 | -91.0138 | 6/30/2011 | Blue Point Chute | 412.5 | 0.2 | 27.8 | 36.7 | | 4.7 | | | 0.2 | 353.8 | 28.2 | | 2.16 | | | | | | | |
| 102 | 29.82292 | -91.3798 | 6/30/2011 | Grand Lake Channel | 379.1 | 0.2 | 28.1 | 21.1 | | 3.43 | | | | | | | | | | | | | | |
| 103 | 29.90217 | -91.4806 | 6/30/2011 | Main Channel at Blue Point Chute | 312.6 | 0.1 | 27.5 | 2.58 | | 1.07 | | | 0.1 | 310.7 | 27.3 | | 0.35 | | | | | | | |
| 26 | 30.06105 | -91.5934 | 7/7/2011 | GA Cut at Grand Bayou | 376.3 | 0.2 | 27.7 | 26.6 | | 3 | | | | | | | | | | | | | | |
| 27 | 30.08367 | -91.6188 | 7/7/2011 | Bayou Benoit Boat Launch | 299.6 | 0.1 | 28.4 | 2.31 | | 1.84 | | 297.1 | 0.1 | 28.2 | | | 0.77 | | | | | | | |
| 28 | 29.99322 | -91.523 | 7/7/2011 | Buffalo Cove | 400.1 | 0.2 | 27.7 | 32 | | 3.4 | | 399.9 | 0.2 | 27.6 | | | 3.75 | | | | | | | |
| 29 | 29.98093 | -91.5346 | 7/7/2011 | GA Cut At Buffalo Cove | 397.4 | 0.2 | 27.7 | 19.7 | | 3.34 | | | | | | | | | | | | | | |
| 30 | 29.89065 | -91.4589 | 7/7/2011 | Grand Bayou | 385.6 | 0.2 | 30.1 | 5.34 | | 4.76 | | 398.1 | 0.2 | 28.4 | | | 2.94 | | | | | | | |
| 37 | 29.82783 | -91.0138 | 7/7/2011 | Blue Point Chute | 419.4 | 0.2 | 27.6 | 51.4 | | 4.41 | | | | | | | | | | | | | | |
| 102 | 29.82292 | -91.3798 | 7/7/2011 | Grand Lake Channel | 398.3 | 0.2 | 27.9 | 24.4 | | 4.03 | | | | | | | | | | | | | | |
| 103 | 29.90217 | -91.4806 | 7/7/2011 | Main Channel at Blue Point Chute | 418.6 | 0.2 | 27.6 | 43.6 | | 4.44 | | | | | | | | | | | | | | |
| 26 | 30.06105 | -91.5934 | 7/21/2011 | GA Cut at Grand Bayou | 436.3 | 0.2 | 29.9 | 16.7 | | 2.87 | | | | | | | | | | | | | | |
| 27 | 30.08367 | -91.6188 | 7/21/2011 | Bayou Benoit Boat Launch | 301.6 | 0.1 | 28.9 | 2.72 | | 1.73 | | 305.1 | 0.1 | 28.8 | | | 0.92 | | | | | | | |
| 28 | 29.99322 | -91.523 | 7/21/2011 | Buffalo Cove | 370.6 | 0.2 | 29.9 | 22.8 | | 2.31 | | 420.3 | 0.2 | 29.8 | | | 1.14 | | | | | | | |
| 29 | 29.98093 | -91.5346 | 7/21/2011 | GA Cut At Buffalo Cove | 415.7 | 0.2 | 29.8 | 17.5 | | 2.41 | | | | | | | | | | | | | | |
| 30 | 29.89065 | -91.4589 | 7/21/2011 | Grand Bayou | 383 | 0.2 | 30.2 | 8.09 | | 3.17 | | 385.1 | 0.2 | 27.8 | | | 0.3 | | | | | | | |
| 37 | 29.82783 | -91.0138 | 7/21/2011 | Blue Point Chute | 457 | 0.2 | 30.4 | 22.8 | | 2.51 | | | | | | | | | | | | | | |
| 102 | 29.82292 | -91.3798 | 7/21/2011 | Grand Lake Channel | 415.9 | 0.2 | 30 | 27.6 | | 2.29 | | | | | | | | | | | | | | |
| 103 | 29.90217 | -91.4806 | 7/21/2011 | Main Channel at Blue Point Chute | 457 | 0.2 | 30.3 | 38.6 | | 2.58 | | | | | | | | | | | | | | |
| 1 | 30.1185 | -91.4726 | 7/21/2011 | Sorrel at Atchafalaya | 660 | | 30.3 | 60 | 7.92 | 5.65 | | 661 | | 30.23 | 75 | 7.91 | 5.6 | | | | | | | |
| 1.5 | 30.10561 | -91.4169 | 7/21/2011 | Gas pipeline off Indigo | 645 | | 30.23 | 72 | 7.88 | 5.55 | | 647 | | 30.22 | 75 | 7.88 | 5.53 | 646 | | 30.23 | 79 | 7.88 | 5.52 | |
| 2 | 30.16289 | -91.3573 | 7/21/2011 | GIWW at Bayou Sorrel | 640 | | 30.68 | 70 | 7.8 | 5.39 | | 641 | | 30.07 | 80 | 7.79 | 5.39 | | | | | | | |
| 3 | 30.07817 | -91.3133 | 7/21/2011 | Byupigeon at GIWW | 586 | | 29.68 | 45 | 7.59 | 4.04 | | | | | | | | 579 | | 29.66 | 65 | 7.58 | 3.98 | |
| 4 | 30.06625 | -91.3494 | 7/21/2011 | Bayou Pigeon near Big Pigeon | 587 | | 29.85 | 45 | 7.6 | 4.16 | | | | | | | | 584 | | 29.85 | 90 | 7.57 | 4.09 | |
| 33 | 30.24058 | -91.5347 | 7/21/2011 | Grand River near Atch | 667 | | 30.25 | 43 | 7.93 | 5.73 | | 666 | | 30.16 | 64 | 7.9 | 5.65 | 664 | | 30.16 | 78 | 7.91 | 5.65 | |
| 34 | 30.23142 | -91.4276 | 7/21/2011 | GIWW S of Grand R. | 632 | | 29.94 | 48 | 7.71 | 5.02 | | 582 | | 29.36 | 40 | 7.45 | 3.13 | | | | | | | |
| GR | 30.23683 | -91.5988 | 7/21/2011 | Grand River | 666 | | 30.26 | 46 | 7.93 | 5.74 | | 661 | | 30.18 | 75 | 7.92 | 5.69 | 665 | | 30.18 | 155 | 7.91 | 5.67 | |
| NE | 30.02772 | -91.4687 | 7/21/2011 | North end of East Grand Lake | 648 | | 30.95 | 33 | 7.9 | 6.54 | | | | | | | | 623 | | 29.43 | 60 | 7.71 | 4.6 | |
| 26 | 30.06105 | -91.5934 | 8/4/2011 | GA Cut at Grand Bayou | 469 | 0.2 | 31.5 | 15.3 | | 2.16 | | | | | | | | | | | | | | |
| 27 | 30.08367 | -91.6188 | 8/4/2011 | Bayou Benoit Boat Launch | 295 | 0.1 | 30.7 | 4.43 | | 1.61 | | 297.3 | 0.1 | 30.6 | | | 1.48 | | | | | | | |
| 28 | 29.99322 | -91.523 | 8/4/2011 | Buffalo Cove | 366.4 | 0.2 | 30.9 | 12.53 | | 2.18 | | 365.9 | 0.2 | 30.8 | | | 1.63 | | | | | | | |
| 29 | 29.98093 | -91.5346 | 8/4/2011 | GA Cut At Buffalo Cove | 456 | 0.2 | 31.7 | 16.7 | | 1.7 | | | | | | | | | | | | | | |
| 30 | 29.89065 | -91.4589 | 8/4/2011 | Grand Bayou | 363.5 | 0.2 | 30.9 | 7.62 | | 2.7 | | 409.7 | 0.2 | 30.6 | | | 0.21 | | | | | | | |
| 37 | 29.82783 | -91.0138 | 8/4/2011 | Blue Point Chute | 513 | 0.2 | 32.2 | 27.2 | | 2.46 | | | | | | | | | | | | | | |
| 102 | 29.82292 | -91.3798 | 8/4/2011 | Grand Lake Channel | 456 | 0.2 | 31.3 | 23.5 | | 2.31 | | | | | | | | | | | | | | |
| 103 | 29.90217 | -91.4806 | 8/4/2011 | Main Channel at Blue Point Chute | 513 | 0.2 | 31.9 | 73.6 | | 5.32 | | | | | | | | | | | | | | |

| Site ID | Lat | Lon | Date | Site Description | Top EC (µS/cm) | Top sal (ppt) | Top Temp ( C) | Top Turb (NTU) | Top pH (su) | Top DO (mg/L) | Top Chl A (mg/L) | Mid EC (µS/cm) | Mid sal (ppt) | Mid Temp ( C) | Mid Turb (NTU) | Mid pH (su) | Mid DO (mg/L) | Bot EC (µS/cm) | Bot sal (ppt) | Bot Temp ( C) | Bot Turb (NTU) | Bot pH (su) | Bot DO (mg/L) | Bot Chl A (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 30.16289 | -91.3573 | 8/4/2011 | GIWW at Bayou Sorrel | 702 | | 31.31 | 43 | 7.74 | 4.92 | | | | | | | | 706 | | 31.37 | 43 | 7.74 | 4.9 | |
| 3 | 30.07817 | -91.3133 | 8/4/2011 | Byupigeon at GIWW | 730 | | 31.65 | 46 | 7.88 | 5.37 | | 733 | | 31.6 | 44 | 7.87 | 5.37 | 734 | | 31.6 | 60 | 7.85 | 5.35 | |
| 4 | 30.06625 | -91.3494 | 8/4/2011 | Bayou Pigeon near Big Pigeon | 625 | | 31.44 | 22 | 7.61 | 4.31 | | | | | | | | 626 | | 31.28 | 33 | 7.6 | 4.17 | |
| 5 | 30.05731 | -91.3684 | 8/4/2011 | Cross Bayou at Little Bayou Pigeon | 628 | | 31.76 | 26 | 7.67 | 4.99 | | | | | | | | 626 | | 31.15 | 38 | 7.62 | 4.46 | |
| 33 | 30.24058 | -91.5347 | 8/4/2011 | Grand River near Atch | 541 | | 29.2 | 24 | 7.17 | 1.98 | | | | | | | | 547 | | 29.14 | 26 | 7.17 | 1.94 | |
| NE | 30.02772 | -91.4687 | 8/4/2011 | North end of East Grand Lake | 656 | | 31.7 | 22 | 7.82 | 8.91 | | | | | | | | 632 | | 29.5 | 39 | 7.37 | 1.17 | |
| 26 | 30.06105 | -91.5934 | 9/8/2011 | GA Cut at Grand Bayou | 549 | 0.3 | 27.7 | 21.3 | | | | | | | | | | | | | | | | |
| 27 | 30.08367 | -91.6188 | 9/8/2011 | Bayou Benoit Boat Launch | 197.3 | | 26.9 | 14.44 | | | | | | | | | | | | | | | | |
| 26 | 30.06105 | -91.5934 | 9/8/2011 | GA Cut at Grand Bayou | 543 | 0.3 | 27.5 | 27.29 | | 1.99 | | | | | | | | | | | | | | |
| 27 | 30.08367 | -91.6188 | 9/8/2011 | Bayou Benoit Boat Launch | 382.1 | 0.2 | 28.5 | 11.58 | | 1.82 | | | | | | | | | | | | | | |
| 28 | 29.99322 | -91.523 | 9/8/2011 | Buffalo Cove | 336.4 | 0.2 | 25.7 | 35.33 | | 2.67 | | | | | | | | | | | | | | |
| 29 | 29.98093 | -91.5346 | 9/8/2011 | GA Cut At Buffalo Cove | 512 | 0.2 | 28 | 16.55 | | 2.35 | | | | | | | | | | | | | | |
| 1 | 30.1185 | -91.4726 | 9/8/2011 | Sorrel at Atchafalaya | 710 | | 26.78 | 32 | 8.17 | 6.68 | | 711 | | 26.75 | 36 | 8.18 | 6.66 | 713 | | 26.75 | 40 | 8.19 | 6.61 | |
| 1.5 | 30.10561 | -91.4169 | 9/8/2011 | Gas pipeline off Indigo | 670 | | 25.96 | 22 | 7.88 | 5.97 | | | | | | | | 521 | | 23.72 | 31 | 7.39 | 4.12 | |
| 2 | 30.16289 | -91.3573 | 9/8/2011 | GIWW at Bayou Sorrel | 754 | | 26.73 | 25 | 8.04 | 6.55 | | 748 | | 26.7 | 29 | 8.07 | 6.46 | 747 | | 26.7 | 31 | 8.06 | 6.44 | |
| 3 | 30.07817 | -91.3133 | 9/8/2011 | Byupigeon at GIWW | 650 | | 27.18 | 20 | 8.19 | 8.41 | | 636 | | 25.55 | 26 | 7.98 | 6.71 | 633 | | 25.52 | 36 | 7.94 | 6.17 | |
| 4 | 30.06625 | -91.3494 | 9/8/2011 | Bayou Pigeon near Big Pigeon | 646 | | 26.79 | 19 | 8.24 | 8.84 | | | | | | | | 493 | | 23.09 | 12 | 7.48 | 3.4 | |
| 5 | 30.05731 | -91.3684 | 9/8/2011 | Cross Bayou at Little Bayou Pigeon | 462 | | 23.03 | 21 | 7.36 | 4.09 | | | | | | | | 471 | | 23.08 | 50 | 7.38 | 4.11 | |
| NE | 30.02772 | -91.4687 | 9/8/2011 | North end of East Grand Lake | 574 | | 26.47 | 39.2 | 8.18 | 9.07 | | | | | | | | 603 | | 24.96 | 53 | 7.75 | 5.66 | |
| 26 | 30.06105 | -91.5934 | 10/12/2011 | GA Cut at Grand Bayou | 505 | 0.2 | 23.2 | 22.26 | | 3.7 | | | | | | | | | | | | | | |
| 27 | 30.08367 | -91.6188 | 10/12/2011 | Bayou Benoit Boat Launch | 320.3 | 0.2 | 25.2 | 14.64 | | 2.03 | | 385.7 | 0.2 | 25 | | | 2.38 | | | | | | | |
| 28 | 29.99322 | -91.523 | 10/12/2011 | Buffalo Cove | 407 | 0.2 | 24.6 | 42.8 | | 1.56 | | 448 | 0.2 | 23.7 | | | 0.48 | | | | | | | |
| 29 | 29.98093 | -91.5346 | 10/12/2011 | GA Cut At Buffalo Cove | 496 | 0.2 | 23.7 | 22.95 | | 2.35 | | | | | | | | | | | | | | |
| 30 | 29.89065 | -91.4589 | 10/12/2011 | Grand Bayou | 467 | 0.2 | 25.8 | 41.58 | | 2.07 | | 530 | 0.2 | 25.8 | | | 0.55 | | | | | | | |
| 37 | 29.82783 | -91.0138 | 10/12/2011 | Blue Point Chute | 412 | 0.3 | 23.6 | 17.39 | | 2.39 | | | | | | | | | | | | | | |
| 102 | 29.82292 | -91.3798 | 10/12/2011 | Grand Lake Channel | 502 | 0.2 | 24.2 | 28.61 | | 2.17 | | | | | | | | | | | | | | |
| 103 | 29.90217 | -91.4806 | 10/12/2011 | Main Channel at Blue Point Chute | 536 | 0.3 | 22.5 | 25.74 | | 3.2 | | | | | | | | | | | | | | |

# Table B3. Field parameter data collected by the LDWF

| Site ID | Latitude | Longitude | Date | Time | Site Description | Depth (m) | Top EC (µS/cm) | Top Temp ( C) | Top Turb (NTU) | Top pH (su) | Top DO (mg/L) | Top Chl A (mg/L) | Bot EC (µS/cm) | Bot Temp ( C) | Bot Turb (NTU) | Bot pH (su) | Bot DO (mg/L) | Bot Chl A (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24 | 30.22153 | -91.59125 | 5/19/2011 | 1152 | Lake Rond | 4.2 | 274 | 19.73 | 80.2 | 7.51 | 6.19 | 6 | 274 | 19.72 | 81.4 | 7.52 | 6.17 | 6.4 |
| 25 | 30.47428 | -91.53878 | 5/19/2011 | 1056 | Bayou Crook Chene | 4.2 | 274 | 19.62 | 105.6 | 7.51 | 6.05 | 6.6 | 274 | 19.61 | 112.7 | 7.52 | 6 | 7 |
| 35 | 30.28311 | -91.68631 | 5/19/2011 | 1238 | River | 4.2 | 272 | 19.69 | 83.9 | 7.47 | 6.23 | 6.2 | 272 | 19.67 | 89.8 | 7.52 | 6.19 | 6.2 |
| 6 | 30.00883 | -91.27014 | 5/19/2011 | 1115 | Bayou Postillion | 4.7 | 286 | 20.88 | 8.9 | 7.08 | 2.09 | 4.8 | 286 | 20.79 | 10.7 | 7.04 | 2.01 | 5.2 |
| 7 | 29.94806 | -91.26906 | 5/19/2011 | 1200 | Old River | 9.3 | 292 | 22.04 | 4.2 | 7.05 | 2.25 | 4.2 | 292 | 21.92 | 26.6 | 7.03 | 2.02 | 5.6 |
| 8 | 29.95889 | -91.26508 | 5/19/2011 | 1145 | Intracoastal Waterway | 10.0 | 285 | 20.9 | 18.8 | 7.12 | 3.14 | 4.9 | 282 | 20.76 | 24.3 | 7.1 | 3.08 | 5.5 |
| 9 | 29.90106 | -91.29475 | 5/19/2011 | 1320 | Stream | 5.1 | 291 | 22.59 | 0 | 6.94 | 1.32 | 4.2 | 287 | 22.05 | 3 | 7.15 | 3.77 | 4.3 |
| 10 | 29.91336 | -94.32197 | 5/19/2011 | 1230 | Stream | 3.5 | 268 | 20.39 | 24.4 | 7.15 | 3.77 | 4.3 | 268 | 20.37 | 28.5 | 7.13 | 3.68 | 6.3 |
| 11 | 29.89492 | -91.36567 | 5/19/2011 | 1250 | Stream | 6.8 | 266 | 21.02 | 41.3 | 7.34 | 5.31 | 4.6 | 266 | 20.06 | 68.8 | 7.29 | 4.84 | 6.4 |
| 12 | 29.85467 | -91.21417 | 5/19/2011 | 1045 | Pipeline | 3.0 | 288 | 22.69 | 0.8 | 6.96 | 2.64 |  | 288 | 22.6 | 0.5 | 6.87 | 2.19 |  |
| 13 | 29.79506 | -91.17747 | 5/19/2011 | 1546 | Little Bayou Sorrel | 3.4 | 300 | 24.52 | -2.6 | 7.11 | 3.57 |  | 299 | 24.13 | -1.8 | 7.04 | 3.1 |  |
| 14 | 29.80372 | -91.23078 | 5/19/2011 | 1112 | Little Bayou Sorrel | 5.2 | 277 | 21.62 | 2.8 | 7.05 | 2.35 |  | 275 | 21.49 | 3.5 | 6.98 | 2.17 |  |
| 15 | 29.76425 | -91.22689 | 5/19/2011 | 1232 | Dog Island Pass | 2.2 | 272 | 21.12 | 26 | 7.2 | 4.13 |  | 273 | 21.18 | 24.4 | 7.11 | 3.79 |  |
| 17 | 29.76136 | -91.21753 | 5/19/2011 | 1245 | Flat Lake | 0.8 | 274 | 21.42 | 24.3 | 7.12 | 3.52 |  | 274 | 21.38 | 24.7 | 7.04 | 3.46 |  |
| 18 | 29.77364 | -91.20958 | 5/19/2011 | 1318 | Flat Lake | 1.3 | 287 | 23.3 | -0.8 | 7.04 | 2.44 |  | 281 | 22.43 | -1 | 7.05 | 3.05 |  |
| 19 | 29.75731 | -91.19317 | 5/19/2011 | 1331 | Flat Lake | 1.6 | 293 | 22.36 | 41.5 | 7.08 | 3.53 |  | 293 | 22.32 | 35.5 | 7.06 | 3.25 |  |
| 20 | 29.76569 | -91.17747 | 5/19/2011 | 1535 | Intracoastal Waterway | 1.1 | 291 | 22.04 | 30.6 | 7.19 | 3.71 |  | 291 | 22.01 | 36.8 | 7.12 | 3.39 |  |
| 21 | 29.72478 | -91.21733 | 5/19/2011 | 1409 | 66.0 ft | 2.6 | 269 | 20.24 | 80.9 | 7.36 | 5.26 |  | 269 | 20.21 | 89.3 | 7.32 | 5.62 |  |
| 22 | 29.72508 | -91.19706 | 5/19/2011 | 1345 | Intracoastal Waterway | 5.1 | 294 | 22.41 | 13 | 7.21 | 8.61 |  | 293 | 22.12 | 29.6 | 7.11 | 3.69 |  |
| 23 | 29.71608 | -91.21972 | 5/19/2011 | 1446 | 66.0 ft | 1.2 | 272 | 20.51 | 63.8 | 7.37 | 8.02 |  | 273 | 20.55 | 82.3 | 7.31 | 5.53 |  |
| 36 | 29.78925 | -91.29025 | 5/19/2011 | 1133 | Lake | 3.4 | 270 | 20.48 | 39.2 | 7.28 | 5.28 |  | 270 | 20.23 | 54.3 | 7.22 | 4.94 |  |
| Chem-LSU-1 | 29.75961 | -91.20750 | 5/19/2011 | 1300 | Mid Flat Lake |  | 277 | 22.54 | 2 | 6.99 | 2.73 |  | 277 | 22.29 | 2.4 | 6.97 | 2.63 |  |
| 24 | 30.22153 | -91.59125 | 5/26/2011 |  | Lake Rond | 0.7 | 291 | 21.64 | 59.2 | 7.5 | 6.22 | 5.4 | 290 | 21.63 | 59.4 | 7.56 | 6.51 | 5.7 |
| 25 | 30.47428 | -91.53878 | 5/26/2011 |  | Bayou Crook Chene | 10.9 | 280 | 21.51 | 71.3 | 7.51 | 6.31 | 6.2 | 294 | 21.53 | 71.3 | 7.57 | 6.28 | 6.2 |
| 35 | 30.28311 | -91.68631 | 5/26/2011 |  | River | 6.5 | 292 | 21.5 | 56.3 | 7.54 | 6.44 | 6.1 | 292 | 21.57 | 59.5 | 7.57 | 6.37 | 5.9 |
| 12 | 29.85467 | -91.21417 | 5/26/2011 | 108 | Pipeline | 4.3 | 287 | 23.87 | 0.3 | 6.92 | 2.04 |  | 287 | 23.86 | 0.1 | 6.94 | 1.89 |  |
| 13 | 29.79506 | -91.17747 | 5/26/2011 | 1521 | Little Bayou Sorrel | 5.8 | 292 | 25.17 | -2 | 7.12 | 3.1 |  | 291 | 24.72 | -1.8 | 7.03 | 2.57 |  |
| 14 | 29.80372 | -91.23078 | 5/26/2011 | 1029 | Little Bayou Sorrel | 5.3 | 278 | 23.82 | 4.1 | 6.93 | 2.13 |  | 278 | 23.56 | 4.4 | 6.95 | 1.91 |  |
| 15 | 29.76425 | -91.22689 | 5/26/2011 | 1045 | Dog Island Pass | 3.9 | 278 | 23.14 | 9.4 | 6.84 | 2.32 |  | 278 | 23.15 | 9.7 | 6.91 | 2.02 |  |
| 17 | 29.76136 | -91.21753 | 5/26/2011 | 1149 | Flat Lake | 1.5 | 279 | 23.31 | 10.9 | 6.96 | 2.35 |  | 278 | 23.28 | 12.9 | 6.98 | 2.1 |  |
| 18 | 29.77364 | -91.20958 | 5/26/2011 | 1202 | Flat Lake | 2.5 | 278 | 24.25 | 2.2 | 6.99 | 2.05 |  | 278 | 24.26 | 2.5 | 7.01 | 1.95 |  |
| 19 | 29.75731 | -91.19317 | 5/26/2011 | 1319 | Flat Lake | 2.0 | 287 | 24.48 | 29.6 | 7.06 | 2.84 |  | 287 | 24.46 | 35 | 7.03 | 2.68 |  |
| 20 | 29.76569 | -91.17747 | 5/26/2011 | 1507 | Intracoastal Waterway | 2.6 | 285 | 24.53 | 53.4 | 7.26 | 2.66 |  | 285 | 24.51 | 60.4 | 7.2 | 2.49 |  |
| 21 | 29.72478 | -91.21733 | 5/26/2011 | 1410 | 66.0 ft | 4.0 | 290 | 22.4 | 60.4 | 7.28 | 5.06 |  | 289 | 22.55 | 59.2 | 7.26 | 4.86 |  |
| 22 | 29.72508 | -91.19706 | 5/26/2011 | 1344 | Intracoastal Waterway | 3.2 | 288 | 24.85 | 15.3 | 7.14 | 3.47 |  | 288 | 24.78 | 16 | 7.12 | 3.41 |  |
| 23 | 29.71608 | -91.21972 | 5/26/2011 | 1424 | 66.0 ft |  | 290 | 22.32 | 68.4 | 7.39 | 5.28 |  |  |  |  |  |  |  |
| 36 | 29.78925 | -91.29025 | 5/26/2011 | 1109 | Lake | 3.6 | 288 | 22.31 | 30.5 | 7.24 | 5.12 |  | 288 | 22.21 | 33.2 | 7.25 | 5.02 |  |

| Site ID | Latitude | Longitude | Date | Time | Site Description | Depth (m) | Top EC (µS/cm) | Top Temp ( C) | Top Turb (NTU) | Top pH (su) | Top DO (mg/L) | Top Chl A (mg/L) | Bot EC (µS/cm) | Bot Temp ( C) | Bot Turb (NTU) | Bot pH (su) | Bot DO (mg/L) | Bot Chl A (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chem-LSU-1 | 29.75961 | -91.20750 | 5/26/2011 | 1301 | Mid Flat Lake | 2.4 | 278 | 24.28 | 3.3 | 7.05 | 3.03 | | 278 | 24.25 | 3.2 | 7.06 | 2.86 | |
| 24 | 30.22153 | -91.59125 | 6/2/2011 | 1138 | Lake Rond | 8.0 | 295 | 23.9 | 42.5 | 7.4 | 5.5 | 6.7 | 0.295 | 23.9 | 46.2 | 7.5 | 5.4 | 6.7 |
| 25 | 30.47428 | -91.53878 | 6/2/2011 | 1030 | Bayou Crook Chene | 11.8 | 296 | 23.9 | 47.7 | 7.5 | 5.6 | 6.5 | 0.296 | 23.9 | 54.1 | 7.5 | 5.5 | 6.3 |
| 35 | 30.28311 | -91.68631 | 6/2/2011 | 1310 | River | 10.6 | 291 | 24.6 | 36.7 | 7.5 | 5.6 | 6.3 | 0.294 | 24.1 | 40.9 | 7.5 | 5.6 | 6.3 |
| 6 | 30.00883 | -91.27014 | 6/2/2011 | 1050 | Bayou Postillion | 4.2 | 308 | 25.95 | 3.8 | 7.12 | 2.15 | 4.9 | 307 | 25.79 | 6.4 | 7.09 | 1.8 | 4.9 |
| 7 | 29.94806 | -91.26906 | 6/2/2011 | 1020 | Old River | 5.0 | 299 | 25.95 | 1.6 | 6.93 | 1.74 | 3.9 | 299 | 25.9 | 28.8 | 6.99 | 1.61 | 6.6 |
| 8 | 29.95889 | -91.26508 | 6/2/2011 | 1030 | Intracoastal Waterway | 8.5 | 310 | 25.84 | 9.3 | 7.14 | 2.43 | 5.2 | 310 | 25.82 | 18.3 | 7.12 | 2.28 | 5.3 |
| 9 | 29.90106 | -91.29475 | 6/2/2011 | 1335 | Stream | 5.2 | 300 | 25.65 | 0.3 | 7 | 1.16 | 4.2 | 300 | 25.52 | 11.7 | 6.98 | 1.03 | 5.3 |
| 10 | 29.91336 | -94.32197 | 6/2/2011 | 1320 | Stream | 7.0 | 313 | 24.98 | 8.7 | 7.12 | 2.54 | 4.7 | 313 | 24.85 | 9.4 | 7.1 | 2.52 | 4.4 |
| 11 | 29.89492 | -91.36567 | 6/2/2011 | 1305 | Stream | 6.5 | 310 | 24.41 | 29.2 | 7.35 | 5 | 5.1 | 301 | 24.39 | 33 | 7.34 | 4.94 | 5.4 |
| 12 | 29.85467 | -91.21417 | 6/2/2011 | 1030 | Pipeline | 3.6 | 291 | 25.89 | -0.5 | 6.97 | 1.76 | | 291 | 25.86 | -0.4 | 6.97 | 1.68 | |
| 13 | 29.79506 | -91.17747 | 6/2/2011 | 1400 | Little Bayou Sorrel | 2.8 | 291 | 26.8 | -1.6 | 7.06 | 2.11 | | 291 | 26.54 | -1.6 | 7.05 | 2.55 | |
| 14 | 29.80372 | -91.23078 | 6/2/2011 | 1053 | Little Bayou Sorrel | 4.6 | 292 | 25.84 | -2 | 6.74 | 1.71 | | 272 | 25.76 | -1.5 | 6.94 | 1.47 | |
| 15 | 29.76425 | -91.22689 | 6/2/2011 | 1107 | Dog Island Pass | 4.1 | 308 | 24.55 | 6.2 | 7.04 | 2.38 | | 308 | 24.45 | 7.7 | 7.02 | 2.39 | |
| 17 | 29.76136 | -91.21753 | 6/2/2011 | 1211 | Flat Lake | 3.0 | 309 | 24.84 | 5.3 | 7.08 | 2.25 | | 309 | 24.82 | 8.5 | 7.01 | 2.12 | |
| 18 | 29.77364 | -91.20958 | 6/2/2011 | 1233 | Flat Lake | 4.0 | 292 | 26.35 | -0.9 | 7.09 | 1.88 | | 291 | 26.33 | -1.6 | 7.02 | 1.83 | |
| 19 | 29.75731 | -91.19317 | 6/2/2011 | 1240 | Flat Lake | 1.6 | 296 | 26.46 | 8.2 | 7.29 | 2.93 | | 296 | 26.26 | 14.2 | 7.19 | 2.68 | |
| 20 | 29.76569 | -91.17747 | 6/2/2011 | 1345 | Intracoastal Waterway | 1.7 | 300 | 26.2 | 33.5 | 7.25 | 2.7 | | 300 | 26.19 | 52 | 7.14 | 2.52 | |
| 21 | 29.72478 | -91.21733 | 6/2/2011 | 1304 | 66.0 ft | 2.8 | 306 | 24.66 | 30.2 | 7.29 | 4.3 | | 306 | 24.52 | 31.3 | 7.26 | 4.45 | |
| 22 | 29.72508 | -91.19706 | 6/2/2011 | 1249 | Intracoastal Waterway | 4.5 | 299 | 26.37 | 13.5 | 7.34 | 3.16 | | 299 | 26.36 | 16.5 | 7.26 | 3.01 | |
| 23 | 29.71608 | -91.21972 | 6/2/2011 | 1313 | 66.0 ft | 2.9 | 305 | 24.61 | 37.4 | 7.23 | 4.18 | | 304 | 24.87 | 28.3 | 7.13 | 3.95 | |
| 36 | 29.78925 | -91.29025 | 6/2/2011 | 1128 | Lake | 2.1 | 305 | 24.59 | 19.1 | 7.34 | 5.02 | | 305 | 24.31 | 24.4 | 7.28 | 4.87 | |
| Chem-LSU-1 | 29.75961 | -91.20750 | 6/2/2011 | 1219 | Mid Flat Lake | 3.5 | 297 | 26.25 | -1.7 | 6.96 | 1.95 | | 299 | 26.01 | 1.4 | 6.95 | 1.74 | |
| 24 | 30.22153 | -91.59125 | 6/9/2011 | 1107 | Lake Rond | 4.5 | 312 | 25.79 | 36.2 | 7.54 | 5.19 | 6.9 | 312 | 25.79 | 37.5 | 7.54 | 5.16 | 5.7 |
| 25 | 30.47428 | -91.53878 | 6/9/2011 | 1023 | Bayou Crook Chene | 6.1 | 312 | 25.8 | 42 | 7.57 | 5.24 | 6.1 | 312 | 25.79 | 48.1 | 7.56 | 5.19 | 6.8 |
| 35 | 30.28311 | -91.68631 | 6/9/2011 | 1146 | River | 4.3 | 310 | 25.95 | 36.2 | 7.57 | 5.26 | 6.4 | 310 | 25.94 | 35.9 | 7.56 | 5.22 | 6.3 |
| 6 | 30.00883 | -91.27014 | 6/9/2011 | 1050 | Bayou Postillion | 4.9 | 313 | 27.32 | 1.8 | 7.09 | 1.4 | 5.4 | 317 | 27.23 | 2 | 7.09 | 1.16 | 4.5 |
| 7 | 29.94806 | -91.26906 | 6/9/2011 | 1120 | Old River | 8.2 | 290 | 26.79 | 1.1 | 7.07 | 1.55 | 4.5 | 307 | 26.74 | 1.8 | 7.07 | 1.42 | 4.2 |
| 8 | 29.95889 | -91.26508 | 6/9/2011 | 1110 | Intracoastal Waterway | 7.6 | 320 | 27.22 | 5 | 7.18 | 2.07 | 4.5 | 323 | 27.13 | 10.4 | 7.17 | 1.83 | 5.5 |
| 9 | 29.90106 | -91.29475 | 6/9/2011 | 1205 | Stream | 8.2 | 303 | 26.82 | 0 | 7.03 | 0.95 | 5.4 | 307 | 26.74 | 1.8 | 7.07 | 2.07 | 4.5 |
| 10 | 29.91336 | -94.32197 | 6/9/2011 | 1135 | Stream | 5.4 | 310 | 26.11 | 6.3 | 7.14 | 2.48 | 4.6 | 310 | 26 | 9.5 | 7.13 | 2.34 | 5.3 |
| 11 | 29.89492 | -91.36567 | 6/9/2011 | 1145 | Stream | 5.7 | 323 | 25.92 | 30.6 | 7.46 | 4.81 | 6.5 | 323 | 25.96 | 29.1 | 7.45 | 4.76 | 7.1 |
| 12 | 29.85467 | -91.21417 | 6/9/2011 | 1040 | Pipeline | 6.7 | 297 | 26.93 | -0.9 | 6.99 | 1.7 | 3.4 | 297 | 26.79 | -0.2 | 7.01 | 1.55 | 3.4 |
| 13 | 29.79506 | -91.17747 | 6/9/2011 | 1256 | Little Bayou Sorrel | 4.7 | 297 | 27.45 | -2 | 7.03 | 2.57 | 3.7 | 296 | 27.25 | -1.7 | 7.02 | 2.29 | 3.8 |
| 14 | 29.80372 | -91.23078 | 6/9/2011 | 1106 | Little Bayou Sorrel | 7.2 | 294 | 26.95 | -2.6 | 6.99 | 1.35 | 3.9 | 295 | 26.85 | -2.5 | 6.98 | 1.21 | 4.2 |
| 15 | 29.76425 | -91.22689 | 6/9/2011 | 1123 | Dog Island Pass | 6.7 | 300 | 26.02 | 3.7 | 7 | 1.95 | 3.4 | 301 | 26.01 | 5.5 | 7.01 | 1.93 | 4 |
| 17 | 29.76136 | -91.21753 | 6/9/2011 | 1232 | Flat Lake | 2.2 | 301 | 26.23 | 3.1 | 6.98 | 1.92 | 3.7 | 301 | 26.23 | 3.7 | 6.97 | 1.81 | 3.7 |
| 18 | 29.77364 | -91.20958 | 6/9/2011 | 1500 | Flat Lake | 5.8 | 289 | 27.02 | -0.6 | 7.01 | 1.89 | 3.8 | 291 | 27.02 | -0.2 | 7.01 | 1.76 | 3.6 |

| Site ID | Latitude | Longitude | Date | Time | Site Description | Depth (m) | Top EC (µS/cm) | Top Temp ( C) | Top Turb (NTU) | Top pH (su) | Top DO (mg/L) | Top Chl A (mg/L) | Bot EC (µS/cm) | Bot Temp ( C) | Bot Turb (NTU) | Bot pH (su) | Bot DO (mg/L) | Bot Chl A (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 | 29.75731 | -91.19317 | 6/9/2011 | 1450 | Flat Lake | 1.8 | 306 | 27.11 | 7.9 | 7.11 | 2.66 | 4.3 | 306 | 27.12 | 13.5 | 7.1 | 2.51 | 4.1 |
| 20 | 29.76569 | -91.17747 | 6/9/2011 | 1440 | Intracoastal Waterway | 2.5 | 312 | 27.16 | 17 | 7.11 | 2.34 | 3.8 | 312 | 27.17 | 13.5 | 7.1 | 2.22 | 3.6 |
| 21 | 29.72478 | -91.21733 | 6/9/2011 | 1606 | 66.0 ft | 7.2 | 313 | 26.05 | 25.9 | 7.28 | 4.35 | 5.6 | 313 | 26.04 | 28.6 | 7.28 | 4.26 | 5.9 |
| 22 | 29.72508 | -91.19706 | 6/9/2011 | 1538 | Intracoastal Waterway | 6.7 | 301 | 27 | 8.6 | 7.16 | 3.31 | 3.3 | 303 | 26.97 | 7.4 | 7.17 | 3.26 | 3.5 |
| 23 | 29.71608 | -91.21972 | 6/9/2011 | 1552 | 66.0 ft | 7.1 | 313 | 25.95 | 37.7 | 7.33 | 4.65 | 6.3 | 314 | 25.95 | 37.7 | 7.33 | 4.6 | 6.5 |
| 36 | 29.78925 | -91.29025 | 6/9/2011 | 1145 | Lake | 4.0 | 316 | 25.99 | 14.6 | 7.28 | 4.41 | 4.7 | 315 | 25.86 | 19.8 | 7.23 | 3.97 | 5.9 |
| Chem-LSU-1 | 29.75961 | -91.20750 | 6/9/2011 | 1510 | Mid Flat Lake | 2.3 | 295 | 26.93 | -1.3 | 7.05 | 2.39 | 4.4 | 297 | 26.93 | 0.04 | 7.05 | 2.25 | 4 |
| 24 | 30.22153 | -91.59125 | 6/16/2011 | 1037 | Lake Rond | 4.6 | 332 | 27.46 | 34.3 | 6.39 | 5.42 | 6.6 | 333 | 27.46 | 36.1 | 6.38 | 5.37 | 6.8 |
| 25 | 30.47428 | -91.53878 | 6/16/2011 | 1008 | Bayou Crook Chene | 3.0 | 332 | 27.51 | 39.7 | 6.4 | 5.4 | 6.6 | 333 | 27.5 | 41.9 | 6.39 | 5.37 | 6.6 |
| 35 | 30.28311 | -91.68631 | 6/16/2011 | 1103 | River | 2.8 | 335 | 27.55 | 35.4 | 6.41 | 5.55 | 6.6 | 337 | 27.56 | 36.2 | 6.4 | 5.53 | 6.3 |
| 6 | 30.00883 | -91.27014 | 6/16/2011 | 1100 | Bayou Postillion | 4.2 | 335 | 28.41 | 1.8 | 7.06 | 1.54 | 5.4 | 336 | 28.43 | 4.3 | 7.1 | 1.32 | 5.6 |
| 7 | 29.94806 | -91.26906 | 6/16/2011 | 1130 | Old River | > 7.3 | 333 | 29.12 | 0 | 7.11 | 1.66 | 5.2 | 331 | 28.51 | 2.1 | 7.08 | 1.33 | 5.2 |
| 8 | 29.95889 | -91.26508 | 6/16/2011 | 1120 | Intracoastal Waterway | > 7.3 | 338 | 28.41 | 5.3 | 7.19 | 2.25 | 6.7 | 338 | 28.31 | 7.5 | 7.17 | 2.06 | 7.5 |
| 9 | 29.90106 | -91.29475 | 6/16/2011 | 1325 | Stream | 4.9 | 315 | 28.23 | 0 | 6.99 | 0.89 | 5 | 317 | 28.04 | 0 | 6.98 | 0.75 | 7.5 |
| 10 | 29.91336 | -94.32197 | 6/16/2011 | 1315 | Stream | 5.4 | 324 | 27.79 | 1.8 | 7.03 | 1.4 | 4.8 | 324 | 27.72 | 1.6 | 7 | 1.04 | 4.3 |
| 11 | 29.89492 | -91.36567 | 6/16/2011 | 1255 | Stream | 5.0 | 313 | 28.8 | 10.5 | 7.27 | 3.82 | 8.1 | 322 | 28.15 | 18.5 | 7.29 | 3.76 | 7.8 |
| 12 | 29.85467 | -91.21417 | 6/16/2011 | 1041 | Pipeline | 5.7 | 325 | 28.49 | -1.6 | 7.02 | 1.45 | 4.1 | 325 | 28.44 | -1.7 | 7.02 | 1.18 | 3.7 |
| 13 | 29.79506 | -91.17747 | 6/16/2011 | 1406 | Little Bayou Sorrel | 4.9 | 315 | 28.92 | -2.5 | 7.06 | 2.06 | 3.9 | 321 | 28.86 | -0.6 | 7.04 | 1.99 | 4.3 |
| 14 | 29.80372 | -91.23078 | 6/16/2011 | 1102 | Little Bayou Sorrel | 5.1 | 324 | 28.26 | -2.6 | 7.04 | 1.6 | 3.8 | 324 | 28.17 | -2.5 | 7.03 | 1.41 | 3.8 |
| 15 | 29.76425 | -91.22689 | 6/16/2011 | 1117 | Dog Island Pass | 4.8 | 324 | 28.36 | 4.2 | 7.08 | 1.71 | 4.6 | 326 | 28.32 | 3.1 | 7.06 | 1.53 | 4.4 |
| 17 | 29.76136 | -91.21753 | 6/16/2011 | 1235 | Flat Lake | 2.0 | 327 | 28.4 | 7.2 | 7.05 | 1.86 | 5.5 | 327 | 28.4 | 7.6 | 7.05 | 1.86 | 5.2 |
| 18 | 29.77364 | -91.20958 | 6/16/2011 | 1248 | Flat Lake | 4.7 | 318 | 28.83 | -3.7 | 7.03 | 1.79 | 3.7 | 319 | 28.77 | -1.2 | 7.02 | 1.77 | 3.7 |
| 19 | 29.75731 | -91.19317 | 6/16/2011 | 1306 | Flat Lake | 1.7 | 330 | 28.76 | 3.3 | 7.12 | 2.46 | 5 | 330 | 28.74 | 6.5 | 7.11 | 2.37 | 4.6 |
| 20 | 29.76569 | -91.17747 | 6/16/2011 | 1352 | Intracoastal Waterway | 3.5 | 337 | 28.7 | 6.6 | 7.15 | 2.49 | 5.2 | 337 | 28.66 | 5.1 | 7.12 | 2.26 | 4.4 |
| 21 | 29.72478 | -91.21733 | 6/16/2011 | 1325 | 66.0 ft | 5.0 | 343 | 27.95 | 32.7 | 7.39 | 4.49 | 6.3 | 346 | 27.9 | 39.5 | 7.41 | 4.61 | 6.2 |
| 22 | 29.72508 | -91.19706 | 6/16/2011 | 1318 | Intracoastal Waterway | 4.3 | 332 | 29.03 | 3.2 | 7.2 | 3.36 | 4.5 | 332 | 28.97 | 3.9 | 7.18 | 3.18 | 5.8 |
| 23 | 29.71608 | -91.21972 | 6/16/2011 | 1334 | 66.0 ft | 3.8 | 348 | 27.85 | 39.4 | 7.46 | 4.95 | 6.4 | 349 | 27.84 | 42.7 | 7.45 | 4.87 | 6 |
| 36 | 29.78925 | -91.29025 | 6/16/2011 | 1157 | Lake | 4.1 | 329 | 28.61 | 10 | 7.27 | 3.53 | 6.4 | 329 | 28.22 | 12.3 | 7.22 | 3.16 | 6.7 |
| 24 | 30.22153 | -91.59125 | 6/23/2011 | 1218 | Lake Rond | 2.7 | 369 | 27.54 | 38 | 6.49 | 5.31 | 6.6 | 369 | 27.54 | 40.7 | 6.48 | 5.25 | 6.7 |
| 25 | 30.47428 | -91.53878 | 6/23/2011 | 1133 | Bayou Crook Chene | 1.6 | 369 | 27.6 | 42.8 | 6.52 | 5.43 | 6 | 369 | 27.6 | 39.6 | 6.52 | 5.39 | 6.4 |
| 35 | 30.28311 | -91.68631 | 6/23/2011 | 1328 | River | 1.2 | 366 | 27.69 | 37.4 | 6.56 | 5.71 | 6.1 | 367 | 27.69 | 36.1 | 6.57 | 1.43 | 4.2 |
| 6 | 30.00883 | -91.27014 | 6/23/2011 | 1120 | Bayou Postillion | 2.2 | 341 | 28.01 | 4.1 | 7.28 | 2.2 | 8 | 342 | 27.93 | 8 | 7.26 | 2.74 | 4.7 |
| 7 | 29.94806 | -91.26906 | 6/23/2011 | 1140 | Old River | 6.4 | 335 | 28.38 | 1.5 | 7.15 | 1.55 | 5.8 | 339 | 28.36 | 3.6 | 7.14 | 5.15 | 6.4 |
| 8 | 29.95889 | -91.26508 | 6/23/2011 | 1105 | Intracoastal Waterway | > 6.9 | 359 | 27.87 | 10.6 | 7.26 | 3.15 | 5.7 | 359 | 27.86 | 48.6 | 7.32 | 3.18 | 6.9 |
| 9 | 29.90106 | -91.29475 | 6/23/2011 | 1300 | Stream | 4.2 | 320 | 28.34 | 0.5 | 6.98 | 0.3 | 5.6 | 321 | 28.34 | 1.7 | 6.97 | 4.29 | 5.9 |
| 10 | 29.91336 | -94.32197 | 6/23/2011 | 1155 | Stream | 4.6 | 306 | 28.35 | 0.2 | 7.04 | 1.11 | 5.4 | 316 | 28.34 | 0.4 | 7.02 | 1.33 | 4.8 |
| 11 | 29.89492 | -91.36567 | 6/23/2011 | 1215 | Stream | 4.4 | 348 | 27.96 | 14.7 | 7.54 | 4.75 | 7.7 | 349 | 27.84 | 15.8 | 7.48 | 2.61 | 5.4 |
| 12 | 29.85467 | -91.21417 | 6/23/2011 | 1140 | Pipeline | 5.1 | 314 | 28.78 | -1.8 | 7.07 | 1.44 | 5.1 | 329 | 28.7 | -0.9 | 7.07 | 1.39 | 6.4 |

| Site ID | Latitude | Longitude | Date | Time | Site Description | Depth (m) | Top EC (µS/cm) | Top Temp ( C) | Top Turb (NTU) | Top pH (su) | Top DO (mg/L) | Top Chl A (mg/L) | Bot EC (µS/cm) | Bot Temp ( C) | Bot Turb (NTU) | Bot pH (su) | Bot DO (mg/L) | Bot Chl A (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13 | 29.79506 | -91.17747 | 6/23/2011 | 1425 | Little Bayou Sorrel | 5.4 | 317 | 28.84 | -2.6 | 7.1 | 1.94 | 3.9 | 317 | 28.81 | -1.2 | 7.08 | 0.22 | 6 |
| 14 | 29.80372 | -91.23078 | 6/23/2011 | 1311 | Little Bayou Sorrel | 4.2 | 313 | 28.77 | -2.9 | 7.09 | 1.71 | 5.1 | 313 | 28.65 | -1.8 | 7.05 | 0.89 | 4.7 |
| 15 | 29.76425 | -91.22689 | 6/23/2011 | 1328 | Dog Island Pass | 5.4 | 339 | 28.66 | 16.5 | 7.25 | 2.81 | 6.4 | 342 | 28.55 | 19.4 | 7.3 | 3.01 | 6.9 |
| 17 | 29.76136 | -91.21753 | 6/23/2011 | 1335 | Flat Lake | 1.7 | 330 | 28.66 | 11.6 | 7.21 | 2.68 | 5.5 | 330 | 28.65 | 15.8 | 7.21 | 1.89 | 6.9 |
| 18 | 29.77364 | -91.20958 | 6/23/2011 | 1355 | Flat Lake | 5.0 | 307 | 28.78 | -0.6 | 7.11 | 2.21 | 4.6 | 307 | 28.72 | -0.9 | 7.12 | 5.13 | 6 |
| 19 | 29.75731 | -91.19317 | 6/23/2011 | 1404 | Flat Lake | 1.1 | 332 | 28.57 | 7.5 | 7.23 | 2.88 | 4.6 | 333 | 28.55 | 9.9 | 7.22 | 3.98 | 5.8 |
| 20 | 29.76569 | -91.17747 | 6/23/2011 | 1414 | Intracoastal Waterway | 4.3 | 336 | 28.4 | 8.2 | 7.24 | 2.89 | 5.3 | 337 | 28.38 | 10.1 | 7.23 | 1.81 | 4.7 |
| 21 | 29.72478 | -91.21733 | 6/23/2011 | 1203 | 66.0 ft | 5.7 | 379 | 27.94 | 48.4 | 7.67 | 5.24 | 6.3 | 380 | 27.93 | 46.5 | 7.68 | 2.82 | 4.6 |
| 22 | 29.72508 | -91.19706 | 6/23/2011 | 1146 | Intracoastal Waterway | 4.7 | 321 | 28.4 | 8.1 | 7.28 | 4.09 | 5.5 | 327 | 28.36 | 9.2 | 7.32 | 2.32 | 4.4 |
| 23 | 29.71608 | -91.21972 | 6/23/2011 | 1217 | 66.0 ft | 4.7 | 382 | 27.93 | 44.9 | 7.67 | 5.23 | 5.7 | 384 | 27.93 | 51 | 7.68 | 4.31 | 7.1 |
| 36 | 29.78925 | -91.29025 | 6/23/2011 | 1248 | Lake | 1.0 | 361 | 28.26 | 17.4 | 7.5 | 4.37 | 6 | 362 | 28.24 | 19 | 7.49 | 5.65 | 6 |
| Chem-LSU-1 | 29.75961 | -91.20750 | 6/23/2011 | 1342 | Mid Flat Lake | 2.3 | 311 | 28.8 | -0.06 | 7.11 | 2.96 | 4.1 | | | | | | |
| 24 | 30.22153 | -91.59125 | 6/30/2011 | 1049 | Lake Rond | 1.6 | 389 | 27.73 | 46.6 | 6.48 | 5.5 | 7.2 | 389 | 27.69 | 64 | 6.48 | 5.46 | 7.9 |
| 25 | 30.47428 | -91.53878 | 6/30/2011 | 1015 | Bayou Crook Chene | 2.3 | 399 | 27.71 | 53.3 | 6.59 | 5.96 | 7.2 | 399 | 27.68 | 73.8 | 6.59 | 5.91 | 7.8 |
| 35 | 30.28311 | -91.68631 | 6/30/2011 | 1122 | River | 2.5 | 406 | 27.47 | 67.8 | 6.69 | 6.48 | 6.6 | 406 | 27.47 | 76.1 | 6.69 | 6.46 | 7.1 |
| 12 | 29.85467 | -91.21417 | 6/30/2011 | 1137 | Pipeline | 5.0 | 344 | 29.55 | -2.5 | 6.96 | 1.35 | 5.3 | 349 | 29.11 | 4.2 | 6.92 | 1.23 | 5.4 |
| 13 | 29.79506 | -91.17747 | 6/30/2011 | 1120 | Little Bayou Sorrel | 4.7 | 333 | 29.53 | -3.1 | 6.92 | 1.37 | 3.6 | 334 | 29.5 | -2.9 | 6.88 | 1.2 | 3.2 |
| 14 | 29.80372 | -91.23078 | 6/30/2011 | 1152 | Little Bayou Sorrel | 5.1 | 307 | 30.21 | -3.2 | 6.95 | 1.71 | 4.8 | 323 | 29.74 | -1.9 | 6.91 | 1.43 | 4.1 |
| 15 | 29.76425 | -91.22689 | 6/30/2011 | 1328 | Dog Island Pass | 5.8 | 371 | 30.16 | 16.7 | 7.19 | 2.98 | 7 | 374 | 30.09 | 19.5 | 7.13 | 3.11 | 8.5 |
| 17 | 29.76136 | -91.21753 | 6/30/2011 | 1336 | Flat Lake | 1.7 | 361 | 30.17 | 13.4 | 7.09 | 2.91 | 7.2 | 361 | 30.13 | 22.9 | 7.05 | 2.81 | 7 |
| 18 | 29.77364 | -91.20958 | 6/30/2011 | 1344 | Flat Lake | 5.1 | 325 | 30.23 | -0.4 | 6.94 | 2.04 | 4.3 | 324 | 30.12 | -1 | 6.9 | 2.01 | 4.1 |
| 19 | 29.75731 | -91.19317 | 6/30/2011 | 1353 | Flat Lake | 0.9 | 362 | 29.49 | 9.8 | 7.07 | 2.83 | 5.6 | 362 | 29.43 | 15.3 | 7.03 | 2.7 | 6.3 |
| 20 | 29.76569 | -91.17747 | 6/30/2011 | 1110 | Intracoastal Waterway | 5.8 | 366 | 29.12 | 7.7 | 6.85 | 2.83 | 5.6 | 37 | 28.98 | 14.4 | 6.9 | 2.83 | 5.4 |
| 21 | 29.72478 | -91.21733 | 6/30/2011 | 1413 | 66.0 ft | 5.3 | 423 | 28.29 | 66.6 | 7.55 | 5.97 | 6.5 | 425 | 28.2 | 80 | 7.57 | 5.89 | 9.2 |
| 22 | 29.72508 | -91.19706 | 6/30/2011 | 1405 | Intracoastal Waterway | 5.1 | 364 | 29.85 | 12.3 | 7.17 | 3.68 | 6.7 | 369 | 29.28 | 58.9 | 7.07 | 2.95 | 7.4 |
| 23 | 29.71608 | -91.21972 | 6/30/2011 | 1418 | 66.0 ft | 5.6 | 400 | 29 | 49.3 | 7.41 | 5.13 | 6.2 | 422 | 28.28 | 75.3 | 7.54 | 5.73 | 6.4 |
| 36 | 29.78925 | -91.29025 | 6/30/2011 | 1209 | Lake | 2.5 | 388 | 30.54 | 14.6 | 7.37 | 4.84 | 8.2 | 414 | 28.22 | 34.3 | 7.36 | 4.85 | 7.7 |
| 24 | 30.22153 | -91.59125 | 7/7/2011 | 1140 | Lake Rond | 3.3 | 399 | 27.55 | 45.5 | 6.62 | 6.04 | 6.2 | 399 | 27.55 | 47.3 | 6.62 | 5.97 | 5.9 |
| 25 | 30.47428 | -91.53878 | 7/7/2011 | 1100 | Bayou Crook Chene | 5.1 | 401 | 27.53 | 55.5 | 6.66 | 6.13 | 6 | 401 | 27.52 | 62.1 | 6.67 | 6.06 | 6.5 |
| 35 | 30.28311 | -91.68631 | 7/7/2011 | 1212 | River | | 405 | 27.61 | 59.7 | 6.71 | 6.4 | 6.3 | 405 | 27.58 | 83.9 | 6.72 | 6.35 | 6.7 |
| 6 | 30.00883 | -91.27014 | 7/7/2011 | 1125 | Bayou Postillion | 2.7 | 409 | 28.11 | 47.8 | 7.65 | 4.53 | 6.6 | 409 | 28.02 | 70 | 7.65 | 4.43 | 7.5 |
| 7 | 29.94806 | -91.26906 | 7/7/2011 | 1100 | Old River | 3.3 | 387 | 28.84 | 3.5 | 7.12 | 1.56 | 5.6 | 395 | 28.6 | 10.8 | 7.24 | 1.91 | 6 |
| 8 | 29.95889 | -91.26508 | 7/7/2011 | 1110 | Intracoastal Waterway | 5.7 | 409 | 28.1 | 25.3 | 7.65 | 4.61 | 6.3 | 410 | 27.98 | 77.4 | 7.64 | 4.41 | 7.4 |
| 9 | 29.90106 | -91.29475 | 7/7/2011 | 1255 | Stream | 2.8 | 379 | 29.51 | 4.9 | 6.98 | 0.34 | 7.8 | 380 | 29.43 | 5.7 | 6.98 | 0.24 | 8.7 |
| 10 | 29.91336 | -94.32197 | 7/7/2011 | 1250 | Stream | 3.8 | 405 | 29.31 | 0 | 7.15 | 1.33 | 4.8 | 406 | 29.27 | 0.5 | 7.13 | 1.11 | 4.5 |
| 11 | 29.89492 | -91.36567 | 7/7/2011 | 1225 | Stream | 3.3 | 432 | 29.97 | 12.3 | 8.32 | 8.39 | 13.3 | 428 | 29.36 | 22.6 | 7.94 | 6.71 | 12.1 |
| 12 | 29.85467 | -91.21417 | 7/7/2011 | 1055 | Pipeline | 4.4 | 371 | 29.17 | 0 | 5.61 | 1.08 | 5.1 | 378 | 28.99 | 7.3 | 5.58 | 0.89 | 5.4 |
| 13 | 29.79506 | -91.17747 | 7/7/2011 | 1035 | Little Bayou Sorrel | 3.4 | 360 | 29.55 | 0 | 5.54 | 1.15 | 3.6 | 360 | 29.55 | 0 | 5.52 | 1.06 | 4 |

| Site ID | Latitude | Longitude | Date | Time | Site Description | Depth (m) | Top EC (µS/cm) | Top Temp ( C) | Top Turb (NTU) | Top pH (su) | Top DO (mg/L) | Top Chl A (mg/L) | Bot EC (µS/cm) | Bot Temp ( C) | Bot Turb (NTU) | Bot pH (su) | Bot DO (mg/L) | Bot Chl A (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14 | 29.80372 | -91.23078 | 7/7/2011 | 1114 | Little Bayou Sorrel | 3.6 | 351 | 29.81 | 0 | 5.75 | 1.34 | 4.5 | 357 | 29.76 | 0 | 5.67 | 1.16 | 4.5 |
| 15 | 29.76425 | -91.22689 | 7/7/2011 | 1215 | Dog Island Pass | 3.0 | 420 | 29.84 | 23.7 | 6.42 | 3.73 | 7.6 | 421 | 29.91 | 26 | 6.3 | 3.8 | 7.2 |
| 17 | 29.76136 | -91.21753 | 7/7/2011 | 1226 | Flat Lake | 1.2 | 408 | 29.86 | 16.1 | 6.11 | 2.9 | 5.7 | 410 | 29.85 | 34.2 | 6.04 | 2.86 | 6.6 |
| 18 | 29.77364 | -91.20958 | 7/7/2011 | 1257 | Flat Lake | 4.0 | 355 | 29.82 | 0 | 5.81 | 1.68 | 4.2 | 354 | 29.51 | 0 | 5.74 | 1.45 | 4 |
| 19 | 29.75731 | -91.19317 | 7/7/2011 | 1311 | Flat Lake | 0.6 | 391 | 29.19 | 20.6 | 6.08 | 3.21 | 5 | 391 | 29.15 | 24.8 | 6.05 | 3.17 | 5.7 |
| 20 | 29.76569 | -91.17747 | 7/7/2011 | 1018 | Intracoastal Waterway | 6.6 | 396 | 28.84 | 21.5 | 5.46 | 3.64 | 4.9 | 400 | 28.65 | 25.4 | 5.63 | 3.66 | 5.6 |
| 21 | 29.72478 | -91.21733 | 7/7/2011 | 1348 | 66.0 ft | 6.4 | 434 | 28 | 65.5 | 6.72 | 5.99 | 6.5 | 436 | 27.89 | 77.8 | 6.74 | 5.95 | 6 |
| 22 | 29.72508 | -91.19706 | 7/7/2011 | 1331 | Intracoastal Waterway | 6.0 | 398 | 30.36 | 13.3 | 6.32 | 4.21 | 5.7 | 400 | 28.87 | 46.3 | 6.1 | 3.35 | 7.7 |
| 23 | 29.71608 | -91.21972 | 7/7/2011 | 1358 | 66.0 ft | 6.9 | 412 | 29.23 | 31.5 | 6.47 | 4.67 | 6.5 | 422 | 28.75 | 51.4 | 6.43 | 4.98 | 6.6 |
| 36 | 29.78925 | -91.29025 | 7/7/2011 | 1140 | Lake | 2.5 | 426 | 29.62 | 20.6 | 6.14 | 4.54 | 7.4 | 436 | 28.14 | 62.9 | 6.1 | 5.14 | 6.2 |
| Chem-LSU-1 | 29.75961 | -91.20750 | 7/7/2011 | 1237 | Mid Flat Lake |  | 392 | 30.3 | 7.7 | 6.09 | 2.8 | 5.6 | 394 | 30.2 | 16 | 5.97 | 2.61 | 5.1 |
| 24 | 30.22153 | -91.59125 | 7/14/2011 | 1312 | Lake Rond | 5.7 | 380 | 28.6 | 81.4 | 6.76 | 6.33 | 6.2 | 387 | 28.6 | 96.9 | 6.75 | 6.23 | 7.1 |
| 25 | 30.47428 | -91.53878 | 7/14/2011 | 1140 | Bayou Crook Chene | 5.6 | 388 | 28.83 | 76.2 | 6.71 | 6.19 | 6.3 | 388 | 28.79 | 84.9 | 6.72 | 6.1 | 6.5 |
| 35 | 30.28311 | -91.68631 | 7/14/2011 | 1340 | River | 3.5 | 388 | 28.79 | 91.5 | 6.79 | 6.43 | 6.2 | 388 | 28.79 | 128.9 | 6.79 | 6.36 | 7.3 |
| 6 | 30.00883 | -91.27014 | 7/14/2011 | 1105 | Bayou Postillion | 3.3 | 402 | 28.95 | 64.4 | 7.35 | 4.81 | 5.6 |  |  |  |  |  |  |
| 7 | 29.94806 | -91.26906 | 7/14/2011 | 1040 | Old River | 3.7 | 413 | 29.13 | 1.8 | 5.9 | 1.38 | 3.5 |  |  |  |  |  |  |
| 8 | 29.95889 | -91.26508 | 7/14/2011 | 1050 | Intracoastal Waterway | 5.2 | 404 | 28.95 | 63.6 | 6.96 | 4.77 | 6.7 |  |  |  |  |  |  |
| 9 | 29.90106 | -91.29475 | 7/14/2011 | 1125 | Stream | 3.0 | 398 | 29.33 | 0 | 7.08 | 0.35 | 7.6 |  |  |  |  |  |  |
| 10 | 29.91336 | -94.32197 | 7/14/2011 | 1135 | Stream | 3.1 | 427 | 29.26 | 0 | 7.01 | 0.85 | 3.8 |  |  |  |  |  |  |
| 11 | 29.89492 | -91.36567 | 7/14/2011 | 1240 | Stream | 3.0 | 432 | 29.65 | 14.8 | 7.73 | 7.9 | 14.3 |  |  |  |  |  |  |
| 12 | 29.85467 | -91.21417 | 7/14/2011 | 1058 | Pipeline | 5.0 | 411 | 29.72 | 0 | 7.13 | 1.08 | 5 |  |  |  |  |  |  |
| 13 | 29.79506 | -91.17747 | 7/14/2011 | 1034 | Little Bayou Sorrel | 5.2 | 393 | 29.8 | -0.7 | 7.08 | 1.04 | 4.4 |  |  |  |  |  |  |
| 14 | 29.80372 | -91.23078 | 7/14/2011 | 1440 | Little Bayou Sorrel | 4.5 | 389 | 29.65 | 1.1 | 7.18 | 2.31 | 5 |  |  |  |  |  |  |
| 15 | 29.76425 | -91.22689 | 7/14/2011 | 1454 | Dog Island Pass | 3.5 | 426 | 29.1 | 24.3 | 7.37 | 3.88 | 6 |  |  |  |  |  |  |
| 17 | 29.76136 | -91.21753 | 7/14/2011 | 1500 | Flat Lake | 1.3 | 420 | 29.29 | 20.1 | 7.33 | 3.72 | 6.2 |  |  |  |  |  |  |
| 18 | 29.77364 | -91.20958 | 7/14/2011 | 1507 | Flat Lake | 4.6 | 372 | 29.36 | 1 | 7.2 | 2.8 | 5.1 |  |  |  |  |  |  |
| 19 | 29.75731 | -91.19317 | 7/14/2011 | 1517 | Flat Lake | 0.6 | 405 | 29.13 | 25.8 | 7.33 | 3.69 | 5.4 |  |  |  |  |  |  |
| 20 | 29.76569 | -91.17747 | 7/14/2011 | 1023 | Intracoastal Waterway | 5.9 | 409 | 29.26 | 26.5 | 7.14 | 3.4 | 5 |  |  |  |  |  |  |
| 21 | 29.72478 | -91.21733 | 7/14/2011 | 1534 | 66.0 ft | 5.7 | 423 | 28.6 | 90.7 | 7.76 | 6.07 | 7 |  |  |  |  |  |  |
| 22 | 29.72508 | -91.19706 | 7/14/2011 | 1526 | Intracoastal Waterway | 3.6 | 405 | 29.19 | 30.5 | 7.46 | 4.72 | 7 |  |  |  |  |  |  |
| 23 | 29.71608 | -91.21972 | 7/14/2011 | 1539 | 66.0 ft | 5.8 | 425 | 28.62 | 92.8 | 7.75 | 6.07 | 6.2 |  |  |  |  |  |  |
| 36 | 29.78925 | -91.29025 | 7/14/2011 | 1415 | Lake | 2.5 | 415 | 28.31 | 57.2 | 7.61 | 5.67 | 6.7 |  |  |  |  |  |  |
| 24 | 30.22153 | -91.59125 | 7/21/2011 | 1051 | Lake Rond | 6.3 | 435 | 30.17 | 32.2 | 6.74 | 5.65 | 6.1 | 436 | 30.09 | 61.1 | 6.7 | 5.5 | 7.2 |
| 25 | 30.47428 | -91.53878 | 7/21/2011 | 1022 | Bayou Crook Chene | 5.7 | 441 | 30.4 | 25 | 6.76 | 5.82 | 5.2 | 441 | 30.29 | 48.4 | 6.75 | 5.65 | 6.7 |
| 35 | 30.28311 | -91.68631 | 7/21/2011 | 1139 | River | 5.8 | 452 | 30.2 | 35.5 | 6.81 | 6.07 | 6.1 | 452 | 30.2 | 45.8 | 6.81 | 5.98 | 5.8 |
| 6 | 30.00883 | -91.27014 | 7/21/2011 | 1045 | Bayou Postillion | 4.2 | 444 | 39 | 39 | 7.6 | 4.55 | 5.7 | 452 | 29.8 | 96.2 | 7.24 | 4.29 | 8.4 |
| 7 | 29.94806 | -91.26906 | 7/21/2011 | 1100 | Old River | 5.7 | 405 | 28.58 | 6 | 6.95 | 1.52 | 3.7 | 420 | 28.52 | 7.5 | 6.97 | 1.44 | 3.7 |
| 8 | 29.95889 | -91.26508 | 7/21/2011 | 1020 | Intracoastal Waterway | 2.2 | 450 | 29.83 | 32 | 7.04 | 4.47 | 5.8 | 452 | 29.72 | 27.9 | 7.27 | 4.34 | 7.2 |

| Site ID | Latitude | Longitude | Date | Time | Site Description | Depth (m) | Top EC (µS/cm) | Top Temp ( C) | Top Turb (NTU) | Top pH (su) | Top DO (mg/L) | Top Chl A (mg/L) | Bot EC (µS/cm) | Bot Temp ( C) | Bot Turb (NTU) | Bot pH (su) | Bot DO (mg/L) | Bot Chl A (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 29.90106 | -91.29475 | 7/21/2011 | 1210 | Stream | 2.7 | 410 | 28.99 | 5 | 6.97 | 0.26 | 6 | 422 | 28.87 | 6.4 | 6.91 | 0.18 | 7.4 |
| 10 | 29.91336 | -94.32197 | 7/21/2011 | 1125 | Stream | 3.5 | 425 | 28.52 | 0 | 7 | 0.95 | 4 | 425 | 28.52 | 0.2 | 6.98 | 0.77 | 3.7 |
| 11 | 29.89492 | -91.36567 | 7/21/2011 | 1145 | Stream | 3.2 | 436 | 29.82 | 19.7 | 7.4 | 6.8 | 14.7 | 441 | 29.36 | 19.6 | 7.47 | 7.02 | 15.9 |
| 12 | 29.85467 | -91.21417 | 7/21/2011 | 1018 | Pipeline | 3.8 | 396 | 29.19 | 0 | 7.14 | 1.17 | 3 | 397 | 28.85 | 0.2 | 7.11 | 0.8 | 3.3 |
| 13 | 29.79506 | -91.17747 | 7/21/2011 | 955 | Little Bayou Sorrel | 3.9 | 397 | 28.73 | 0 | 7.13 | 1.15 | 3.3 | 397 | 28.7 | 0 | 7.12 | 1.05 | 3.3 |
| 14 | 29.80372 | -91.23078 | 7/21/2011 | 1036 | Little Bayou Sorrel | 4.6 | 401 | 29.23 | 0 | 7.13 | 1.2 | 3.5 | 401 | 29.09 | 0 | 7.12 | 1.04 | 3.1 |
| 15 | 29.76425 | -91.22689 | 7/21/2011 | 1125 | Dog Island Pass | 6.0 | 444 | 29.78 | 19.2 | 7.32 | 3 | 4.5 | 445 | 29.8 | 19.8 | 7.32 | 3 | 4.2 |
| 17 | 29.76136 | -91.21753 | 7/21/2011 | 1138 | Flat Lake | 1.0 | 434 | 29.64 | 11.6 | 7.25 | 2.6 | 4.5 | 434 | 29.64 | 12.8 | 7.25 | 2.57 | 4.1 |
| 18 | 29.77364 | -91.20958 | 7/21/2011 | 1150 | Flat Lake | 4.2 | 396 | 28.98 | 0 | 7.14 | 1.46 | 3.3 | 394 | 28.74 | 0 | 7.13 | 1.34 | 3.2 |
| 19 | 29.75731 | -91.19317 | 7/21/2011 | 1203 | Flat Lake | 0.4 | 426 | 29.31 | 18.7 | 7.34 | 3.36 | 4.8 | 426 | 29.3 | 22.6 | 7.32 | 3.32 | 5.4 |
| 20 | 29.76569 | -91.17747 | 7/21/2011 | 944 | Intracoastal Waterway | 5.8 | 433 | 29.25 | 37.4 | 7.25 | 3.58 | 5.4 | 434 | 29.29 | 40.2 | 7.32 | 3.67 | 5.2 |
| 21 | 29.72478 | -91.21733 | 7/21/2011 | 1248 | 66.0 ft | 6.0 | 486 | 30.32 | 52.9 | 7.81 | 5.66 | 5.2 | 487 | 30.31 | 67.2 | 7.82 | 5.6 | 5.3 |
| 22 | 29.72508 | -91.19706 | 7/21/2011 | 1233 | Intracoastal Waterway | 5.6 | 437 | 30.59 | 18.3 | 7.44 | 4.5 | 5.3 | 437 | 29.53 | 49.7 | 7.4 | 3.87 | 6.1 |
| 23 | 29.71608 | -91.21972 | 7/21/2011 | 1302 | 66.0 ft | 6.4 | 488 | 30.4 | 43.6 | 7.83 | 5.69 | 4.6 | 487 | 30.31 | 66.6 | 7.83 | 5.62 | 5.2 |
| 36 | 29.78925 | -91.29025 | 7/21/2011 | 1052 | Lake | 2.8 | 475 | 29.96 | 37.1 | 7.61 | 5 | 5.3 | 472 | 29.81 | 52.2 | 7.55 | 4.71 | 7.5 |
| Chem-LSU-1 | 29.75961 | -91.20750 | 7/21/2011 | 1210 | Mid Flat Lake | 1.4 | 433 | 29.74 | 13.4 | 7.26 | 2.79 | 4.8 | 433 | 29.71 | 16.1 | 7.26 | 2.71 | 4.6 |
| 24 | 30.22153 | -91.59125 | 7/28/2011 | 1153 | Lake Rond | 5.3 | 445 | 30.21 | 25.3 | 6.62 | 5.21 | 6.3 | 444 | 29.89 | 52.3 | 6.67 | 5.22 | 7.4 |
| 25 | 30.47428 | -91.53878 | 7/28/2011 | 1106 | Bayou Crook Chene | 5.7 | 464 | 29.92 | 27.5 | 6.73 | 5.43 | 6 | 467 | 29.69 | 93.8 | 6.7 | 5.12 | 7.2 |
| 35 | 30.28311 | -91.68631 | 7/28/2011 | 1225 | River | 5.5 | 461 | 30.76 | 14.9 | 6.85 | 5.77 | 4.3 | 462 | 30.12 | 47.9 | 6.85 | 5.71 | 7.5 |
| 6 | 30.00883 | -91.27014 | 7/28/2011 | 1040 | Bayou Postillion | 3.5 | 448 | 28.7 | 16.2 | 7.4 | 4.11 | 5.2 | 448 | 28.6 | 23.7 | 7.39 | 4.01 | 5.5 |
| 7 | 29.94806 | -91.26906 | 7/28/2011 | 1015 | Old River | 5.7 | 429 | 27.28 | 6.7 | 6.99 | 1.97 | 3.1 | 429 | 27.21 | 9.7 | 7.04 | 1.86 | 3.6 |
| 8 | 29.95889 | -91.26508 | 7/28/2011 | 1025 | Intracoastal Waterway | 5.2 | 448 | 28.55 | 14.6 | 7.37 | 4.11 | 5.2 | 448 | 28.46 | 32.5 | 7.38 | 3.98 | 5.2 |
| 9 | 29.90106 | -91.29475 | 7/28/2011 | 1210 | Stream | 3.1 | 414 | 27.68 | 1.4 | 7 | 0.52 | 4.1 | 412 | 27.54 | 1.8 | 6.96 | 0.27 | 5 |
| 10 | 29.91336 | -94.32197 | 7/28/2011 | 1130 | Stream | 3.6 | 430 | 27.44 | 0.9 | 7.07 | 1.22 | 3 | 430 | 27.35 | 3 | 7.06 | 1.07 | 3.3 |
| 11 | 29.89492 | -91.36567 | 7/28/2011 | 1150 | Stream | 3.4 | 448 | 28.82 | 11.1 | 7.62 | 7.86 | 13.1 | 446 | 28.3 | 21.6 | 7.49 | 6.42 | 12.4 |
| 12 | 29.85467 | -91.21417 | 7/28/2011 | 1023 | Pipeline | 4.5 | 416 | 27.74 | 0 | 6.94 | 1.24 | 3.6 | 421 | 27.29 | 1.8 | 6.9 | 0.91 | 3.6 |
| 13 | 29.79506 | -91.17747 | 7/28/2011 | 1006 | Little Bayou Sorrel | 4.2 | 391 | 27.64 | 1.1 | 6.85 | 1.35 | 3.5 | 391 | 27.48 | -0.1 | 7.04 | 1.08 | 4 |
| 14 | 29.80372 | -91.23078 | 7/28/2011 | 1038 | Little Bayou Sorrel | 4.1 | 400 | 27.92 | -0.1 | 7.04 | 1.35 | 3.1 | 400 | 27.74 | 1.5 | 6.96 | 1.08 | 3.5 |
| 15 | 29.76425 | -91.22689 | 7/28/2011 | 1114 | Dog Island Pass | 4.3 | 462 | 28.53 | 18.8 | 7.27 | 2.59 | 4 | 462 | 28.51 | 21.7 | 7.23 | 3.54 | 5.3 |
| 17 | 29.76136 | -91.21753 | 7/28/2011 | 1122 | Flat Lake | 1.0 | 439 | 28.26 | 11.3 | 7.19 | 2.64 | 4.1 | 439 | 28.24 | 12.3 | 7.18 | 2.62 | 4.8 |
| 18 | 29.77364 | -91.20958 | 7/28/2011 | 1139 | Flat Lake | 3.8 | 389 | 28.02 | -0.6 | 7.13 | 1.56 | 3.2 | 386 | 27.35 | -0.5 | 7.09 | 1.27 | 3.7 |
| 19 | 29.75731 | -91.19317 | 7/28/2011 | 957 | Flat Lake | 0.2 | 423 | 28.42 | 14.7 | 7.24 | 3.3 | 5.2 | 429 | 28.42 | 15.5 | 7.24 | 3.28 | 4.2 |
| 20 | 29.76569 | -91.17747 | 7/28/2011 | 1155 | Intracoastal Waterway | 5.6 | 439 | 28.18 | 13.9 | 6.63 | 3.71 | 4.7 | 438 | 28.14 | 17.5 | 6.76 | 3.54 | 4.6 |
| 21 | 29.72478 | -91.21733 | 7/28/2011 | 1147 | 66.0 ft | 5.1 | 522 | 29.95 | 61.9 | 7.69 | 5.47 | 5.5 | 523 | 29.89 | 87.8 | 7.7 | 5.41 | 6.4 |
| 22 | 29.72508 | -91.19706 | 7/28/2011 | 1200 | Intracoastal Waterway | 2.6 | 435 | 29.57 | 15.5 | 7.39 | 4.6 | 5.8 | 434 | 28.27 | 26.1 | 7.31 | 3.73 | 5.7 |
| 23 | 29.71608 | -91.21972 | 7/28/2011 | 1053 | 66.0 ft | 6.0 | 522 | 29.93 | 56.5 | 7.76 | 5.49 | 5.7 | 520 | 29.8 | 82.2 | 7.73 | 5.35 | 5.9 |
| 36 | 29.78925 | -91.29025 | 7/28/2011 |  | Lake | 2.0 | 496 | 29.14 | 34.7 | 7.37 | 4.81 | 6.5 | 496 | 29.09 | 43.9 | 7.37 | 4.74 | 6.7 |
| LDWF-extra | 29.93807 | -91.32948 | 7/28/2011 | 1120 | Upper Middle Fork | 2.6 | 412 | 27.77 | 0.1 | 6.98 | 0.42 | 3.2 | 412 | 27.01 | 0.3 | 6.95 | 0.28 | 4.6 |

| Site ID | Latitude | Longitude | Date | Time | Site Description | Depth (m) | Top EC (µS/cm) | Top Temp ( C) | Top Turb (NTU) | Top pH (su) | Top DO (mg/L) | Top Chl A (mg/L) | Bot EC (µS/cm) | Bot Temp ( C) | Bot Turb (NTU) | Bot pH (su) | Bot DO (mg/L) | Bot Chl A (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24 | 30.22153 | -91.59125 | 8/4/2011 | 1004 | Lake Rond | 4.3 | 494 | 32.07 | 21.4 | 8.13 | 5.79 | 6.6 | 494 | 32.04 | 24.3 | 8.13 | 5.74 | 6.4 |
| 25 | 30.47428 | -91.53878 | 8/4/2011 | 1035 | Bayou Crook Chene | 5.7 | 497 | 31.86 | 17.5 | 8.05 | 5.65 | 6.1 | 497 | 31.7 | 33.1 | 7.91 | 5.48 | 6.7 |
| 35 | 30.28311 | -91.68631 | 8/4/2011 | 1106 | River | 5.1 | 499 | 31.74 | 26.7 | 8.13 | 5.72 | 5.5 | 498 | 31.73 | 42.2 | 8.14 | 5.7 | 6.7 |
| 6 | 30.00883 | -91.27014 | 8/4/2011 | 1035 | Bayou Postillion | 3.2 | 491 | 31.27 | 15.9 | 7.57 | 5.02 | 6.6 | 491 | 30.91 | 37.5 | 7.54 | 4.61 | 7 |
| 7 | 29.94806 | -91.26906 | 8/4/2011 | 1010 | Old River | 5.1 | 421 | 29.1 | 3.9 | 6.91 | 1.5 | 3.7 | 421 | 29.03 | 6 | 6.97 | 1.25 | 3.5 |
| 8 | 29.95889 | -91.26508 | 8/4/2011 | 1020 | Intracoastal Waterway | 5.2 | 491 | 30.95 | 23.6 | 7.51 | 4.66 | 6 | 491 | 30.91 | 47.9 | 7.51 | 4.55 | 6.4 |
| 9 | 29.90106 | -91.29475 | 8/4/2011 | 1205 | Stream | 3.0 | 414 | 29.53 | 2.1 | 6.97 | 0.27 | 4.5 | 413 | 29.67 | 2.6 | 7.1 | 1.36 | 7.1 |
| 10 | 29.91336 | -94.32197 | 8/4/2011 | 1110 | Stream | 3.6 | 429 | 29.67 | 2.6 | 7.1 | 1.36 | 3.3 | 428 | 29.62 | 9 | 7.07 | 1.19 | 4 |
| 11 | 29.89492 | -91.36567 | 8/4/2011 | 1140 | Stream | 2.8 | 436 | 31.56 | 11.7 | 7.74 | 7.21 | 11.4 | 437 | 31.24 | 21.8 | 7.7 | 6.77 | 12.7 |
| 12 | 29.85467 | -91.21417 | 8/4/2011 | 1109 | Pipeline | 3.9 | 417 | 30.14 | 8 | 7.03 | 2.68 | 5.3 | 419 | 28.98 | 15.1 | 6.95 | 0.78 | 5.1 |
| 13 | 29.79506 | -91.17747 | 8/4/2011 | 1053 | Little Bayou Sorrel | 3.5 | 395 | 29.9 | -0.1 | 6.83 | 6.83 | 1.19 | 395 | 29.84 | 0.8 | 6.85 | 6.85 | 1.1 |
| 14 | 29.80372 | -91.23078 | 8/4/2011 | 1128 | Little Bayou Sorrel | 2.8 | 394 | 30.42 | -0.3 | 7.02 | 1.28 | 4 | 395 | 30.28 | 1.3 | 6.98 | 1.02 | 3.4 |
| 15 | 29.76425 | -91.22689 | 8/4/2011 | 1217 | Dog Island Pass | 3.7 | 467 | 31.46 | 24.4 | 7.32 | 4.04 | 6.8 | 470 | 31.42 | 30.5 | 7.32 | 4.08 | 7.6 |
| 17 | 29.76136 | -91.21753 | 8/4/2011 | 1226 | Flat Lake | 0.7 | 433 | 31.04 | 13.5 | 7.32 | 3.07 | 6.1 | 433 | 31.03 | 18.2 | 7.23 | 3.01 | 7 |
| 18 | 29.77364 | -91.20958 | 8/4/2011 | 1243 | Flat Lake | 3.8 | 393 | 31.03 | 0.1 | 7.22 | 2 | 3.4 | 364 | 31.32 | 4.7 | 7.17 | 1.6 | 4.5 |
| 19 | 29.75731 | -91.19317 | 8/4/2011 | 1256 | Flat Lake | 0.2 | 447 | 31.14 | 14.2 | 7.31 | 3.79 | 4.7 | 447 | 31.14 | 17.2 | 7.27 | 3.76 | 5.6 |
| 20 | 29.76569 | -91.17747 | 8/4/2011 | 1043 | Intracoastal Waterway | 5.8 | 463 | 30.5 | 20.8 | 6.61 | 3.79 | 5.8 | 463 | 30.46 | 22.5 | 6.72 | 3.7 | 6 |
| 21 | 29.72478 | -91.21733 | 8/4/2011 | 1320 | 66.0 ft | 5.6 | 570 | 32.02 | 41.5 | 7.77 | 5.57 | 4.7 | 570 | 31.93 | 75.6 | 7.76 | 5.49 | 6.4 |
| 22 | 29.72508 | -91.19706 | 8/4/2011 | 1307 | Intracoastal Waterway | 3.9 | 461 | 31.69 | 17.6 | 7.47 | 5.05 | 7.5 | 462 | 30.7 | 28.3 | 7.34 | 3.89 | 6.9 |
| 23 | 29.71608 | -91.21972 | 8/4/2011 | 1331 | 66.0 ft | 5.5 | 566 | 31.87 | 65 | 7.83 | 5.53 | 5.5 | 559 | 31.82 | 68.8 | 7.79 | 5.38 | 6.5 |
| 36 | 29.78925 | -91.29025 | 8/4/2011 | 1146 | Lake | 1.8 | 541 | 31.86 | 31.8 | 7.48 | 5.44 | 6.4 | 527 | 31.87 | 47 | 7.52 | 5.48 | 10.4 |
| Chem-LSU-1 | 29.75961 | -91.20750 | 8/4/2011 | 1233 | Mid Flat Lake |  | 431 | 31.78 | 15.3 | 7.34 | 3.89 | 6.6 | 431 | 31.59 | 21.4 | 7.29 | 3.82 | 7.9 |
| 24 | 30.22153 | -91.59125 | 9/8/2011 | 1051 | Lake Rond | 6.2 | 526 | 26.85 | 13.2 | 8.36 | 6.99 | 7 | 526 | 26.64 | 16.7 | 8.35 | 7.19 | 9 |
| 25 | 30.47428 | -91.53878 | 9/8/2011 | 1018 | Bayou Crook Chene | 5.6 | 526 | 26.64 | 14.3 | 8.32 | 7.06 | 7.2 | 527 | 26.2 | 32.3 | 8.36 | 6.69 | 8.4 |
| 35 | 30.28311 | -91.68631 | 9/8/2011 | 1136 | River | 2.3 | 517 | 26.34 | 14.1 | 8.34 | 7.1 | 5.7 | 517 | 26.74 | 20.1 | 8.33 | 6.91 | 6.9 |
| 6 | 30.00883 | -91.27014 | 9/8/2011 | 1050 | Bayou Postillion | 3.2 | 539 | 25.09 | 25.9 | 7.72 | 6.14 | 8.7 | 530 | 24.13 | 33 | 7.53 | 5.09 | 7.1 |
| 7 | 29.94806 | -91.26906 | 9/8/2011 | 1025 | Old River | 5.3 | 448 | 23.52 | 13.2 | 6.84 | 3.16 | 4.8 | 449 | 23.48 | 14.9 | 6.93 | 2.97 | 4.7 |
| 8 | 29.95889 | -91.26508 | 9/8/2011 | 1035 | Intracoastal Waterway | 4.2 | 508 | 26.02 | 16.2 | 7.8 | 7.09 | 8 | 508 | 25.94 | 26.7 | 7.82 | 6.92 | 8.9 |
| 9 | 29.90106 | -91.29475 | 9/8/2011 | 1225 | Stream | 2.5 | 334 | 23.95 | 4.6 | 7.09 | 1.62 | 8.9 | 336 | 23.78 | 6.8 | 6.99 | 1.4 | 7.2 |
| 10 | 29.91336 | -94.32197 | 9/8/2011 | 1135 | Stream | 3.1 | 349 | 23.17 | 13.7 | 7.13 | 3.27 | 9 | 350 | 23.13 | 27.7 | 7.08 | 3.17 | 9.2 |
| 11 | 29.89492 | -91.36567 | 9/8/2011 |  | Stream | 3.2 | 428 | 24.83 | 29.6 | 8.69 | 10.32 | 27.2 | 429 | 24.61 | 49.7 | 8.64 | 9.93 | 28.1 |
| 12 | 29.85467 | -91.21417 | 9/8/2011 | 1013 | Pipeline | 4.1 | 467 | 24.71 | 14.8 | 7.19 | 4.99 | 7.7 | 444 | 24.25 | 19.5 | 7.24 | 3.91 | 6.7 |
| 13 | 29.79506 | -91.17747 | 9/8/2011 | 955 | Little Bayou Sorrel | 3.8 | 346 | 23.98 | 12.2 | 7.11 | 2.44 | 5.1 | 346 | 23.93 | 11.9 | 2.06 | 2.25 | 5.6 |
| 14 | 29.80372 | -91.23078 | 9/8/2011 | 1031 | Little Bayou Sorrel | 3.1 | 361 | 24.25 | 10.1 | 7.29 | 2.39 | 4.8 | 361 | 24.1 | 20.7 | 7.19 | 2 | 6.1 |
| 15 | 29.76425 | -91.22689 | 9/8/2011 | 1121 | Dog Island Pass | 2.4 | 411 | 24.94 | 23.6 | 7.74 | 5.25 | 8.7 | 423 | 24.86 | 26.8 | 7.68 | 5.46 | 9.2 |
| 17 | 29.76136 | -91.21753 | 9/8/2011 | 1129 | Flat Lake | 0.5 | 390 | 24.69 | 16 | 7.68 | 4.24 | 6 | 392 | 24.72 | 18.7 | 7.6 | 4.25 | 8 |
| 18 | 29.77364 | -91.20958 | 9/8/2011 | 1150 | Flat Lake | 3.5 | 364 | 24.47 | 5.4 | 7.61 | 3.41 | 4.3 | 345 | 23.19 | 5.5 | 7.52 | 2.15 | 4.3 |
| 19 | 29.75731 | -91.19317 | 9/8/2011 | 1223 | Flat Lake | 0.3 | 468 | 25.58 | 23.4 | 7.67 | 5.72 | 7.3 | 469 | 25.56 | 23.6 | 7.64 | 5.63 | 8.1 |

| Site ID | Latitude | Longitude | Date | Time | Site Description | Depth (m) | Top EC (µS/cm) | Top Temp ( C) | Top Turb (NTU) | Top pH (su) | Top DO (mg/L) | Top Chl A (mg/L) | Bot EC (µS/cm) | Bot Temp ( C) | Bot Turb (NTU) | Bot pH (su) | Bot DO (mg/L) | Bot Chl A (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | 29.76569 | -91.17747 | 9/8/2011 | 946 | Intracoastal Waterway | 3.8 | 496 | 25.55 | 17.2 | 6.59 | 6.06 | 9 | 496 | 25.55 | 22.1 | 6.78 | 5.95 | 8.8 |
| 21 | 29.72478 | -91.21733 | 9/8/2011 | 1235 | 66.0 ft | 6.0 | 555 | 27.08 | 23.6 | 8.03 | 6.87 | 5.6 | 556 | 27.04 | 41 | 8.09 | 6.79 | 6.9 |
| 22 | 29.72508 | -91.19706 | 9/8/2011 | 1300 | Intracoastal Waterway | 1.8 | 494 | 26.54 | 15.8 | 8.12 | 6.82 | 8.4 | 492 | 25.69 | 23.1 | 8.01 | 6.11 | 8.7 |
| 23 | 29.71608 | -91.21972 | 9/8/2011 | 1246 | 66.0 ft | 5.3 | 556 | 27.14 | 20.5 | 8.24 | 6.96 | 5.1 | 554 | 26.99 | 36.9 | 8.26 | 6.82 | 6.7 |
| 36 | 29.78925 | -91.29025 | 9/8/2011 | 1050 | Lake | 1.4 | 524 | 25.96 | 23.67 | 7.76 | 7.02 | 8.3 | 524 | 25.93 | 26 | 7.81 | 6.95 | 9.3 |
| Chem-LSU-1 | 29.75961 | -91.20750 | 9/8/2011 |  | Mid Flat Lake | 0.7 | 388 | 25.25 | 17.8 | 7.56 | 4.62 | 6.5 | 388 | 25.12 | 20.9 | 7.54 | 4.54 | 8.6 |
| 24 | 30.22153 | -91.59125 | 10/12/2011 | 1010 | Lake Rond | 6.7 | 542 | 22.86 | 18.6 | 7.63 | 8.17 | 7.9 | 542 | 22.71 | 22.7 | 7.68 | 7.96 | 8.2 |
| 25 | 30.47428 | -91.53878 | 10/12/2011 | 1040 | Bayou Crook Chene | 4.1 | 572 | 22.29 | 19.7 | 7.83 | 8.19 | 5.3 | 572 | 21.92 | 32.4 | 7.81 | 8.03 | 6.6 |
| 35 | 30.28311 | -91.68631 | 10/12/2011 | 945 | River | 3.2 | 570 | 22.34 | 18.3 | 7.03 | 8.42 | 6.4 | 575 | 22.28 | 23.2 | 7.35 | 8.31 | 6.5 |
| 6 | 30.00883 | -91.27014 | 10/12/2011 | 1315 | Bayou Postillion | 2.5 | 556 | 24.48 | 17.7 | 8.14 | 8.71 | 4.4 | 556 | 22.86 | 27.4 | 8.13 | 8.42 | 6.8 |
| 7 | 29.94806 | -91.26906 | 10/12/2011 | 1310 | Old River | 3.7 | 554 | 25.35 | 14.2 | 7.65 | 7.18 | 12.7 | 553 | 24.25 | 25.7 | 7.58 | 5.78 | 6.2 |
| 8 | 29.95889 | -91.26508 | 10/12/2011 | 1320 | Intracoastal Waterway | 4.6 | 556 | 23.28 | 19.1 | 8.05 | 8.49 | 6.3 | 555 | 22.8 | 23.6 | 8.04 | 8.3 | 6.7 |
| 9 | 29.90106 | -91.29475 | 10/12/2011 | 1440 | Stream | 2.4 | 517 | 25.33 | 15.6 | 7.89 | 5.41 | 12.5 | 517 | 24.99 | 20.2 | 7.69 | 4.83 | 11.4 |
| 10 | 29.91336 | -94.32197 | 10/12/2011 | 1400 | Stream | 2.7 | 512 | 25.8 | 21.7 | 7.89 | 6.21 | 18.8 | 512 | 25.53 | 27.8 | 7.81 | 5.87 | 16.9 |
| 11 | 29.89492 | -91.36567 | 10/12/2011 | 1420 | Stream | 2.4 | 505 | 27.69 | 23.6 | 8.63 | 10.38 | 18.9 | 505 | 26.37 | 63.4 | 8.53 | 8.85 | 2.39 |
| 12 | 29.85467 | -91.21417 | 10/12/2011 | 105 | Pipeline | 3.5 | 554 | 23.78 | 35.6 | 7.63 | 6.73 | 6.4 | 554 | 23.31 | 42.3 | 7.65 | 6.55 | 6 |
| 13 | 29.79506 | -91.17747 | 10/12/2011 | 948 | Little Bayou Sorrel | 3.7 | 544 | 24.47 | 15.5 | 7.45 | 5.87 | 5.7 | 544 | 24.43 | 21.6 | 7.45 | 5.74 | 4.7 |
| 14 | 29.80372 | -91.23078 | 10/12/2011 | 1029 | Little Bayou Sorrel | 3.0 | 544 | 24.67 | 13.8 | 7.42 | 4.88 | 5.3 | 544 | 24.38 | 18.9 | 7.4 | 4.64 | 5.3 |
| 15 | 29.76425 | -91.22689 | 10/12/2011 | 1140 | Dog Island Pass | 2.4 | 550 | 24.56 | 28.4 | 7.82 | 6.68 | 8 | 551 | 24.38 | 33.8 | 7.83 | 6.71 | 9 |
| 17 | 29.76136 | -91.21753 | 10/12/2011 | 1250 | Flat Lake | 0.2 | 553 | 25.3 | 26.7 | 7.88 | 7.44 | 9.1 | 553 | 25.25 | 29.8 | 7.87 | 7.44 | 9.1 |
| 18 | 29.77364 | -91.20958 | 10/12/2011 | 1259 | Flat Lake | 3.8 | 551 | 27 | 8.2 | 7.6 | 5.7 | 5.6 | 545 | 24.02 | 9.3 | 7.4 | 3.19 | 5.3 |
| 19 | 29.75731 | -91.19317 | 10/12/2011 | 1311 | Flat Lake | 0.2 | 554 | 24.36 | 28.9 | 8.05 | 8.69 | 5.9 | 554 | 24.36 | 30.8 | 8.05 | 8.7 | 6.1 |
| 20 | 29.76569 | -91.17747 | 10/12/2011 | 938 | Intracoastal Waterway | 4.8 | 553 | 23.42 | 23.6 | 7.56 | 8.4 | 5.7 | 553 | 23.43 | 25.8 | 7.71 | 8.36 | 6.1 |
| 21 | 29.72478 | -91.21733 | 10/12/2011 | 1325 | 66.0 ft | 5.7 | 558 | 22.48 | 19.3 | 8.06 | 8.59 | 5 | 559 | 22.41 | 34.4 | 8.06 | 8.52 | 6 |
| 22 | 29.72508 | -91.19706 | 10/12/2011 | 1221 | Intracoastal Waterway | 2.3 | 552 | 24.19 | 22.5 | 8.04 | 8.55 | 7.5 | 554 | 23.8 | 37.1 | 8.04 | 8.4 | 8.55 |
| 23 | 29.71608 | -91.21972 | 10/12/2011 | 1334 | 66.0 ft | 6.0 | 555 | 24.68 | 19.7 | 8.2 | 9 | 10.5 | 556 | 23.8 | 22.3 | 8.15 | 8.65 | 7.4 |
| 36 | 29.78925 | -91.29025 | 10/12/2011 | 1049 | Lake | 1.5 | 555 | 23.05 | 30.3 | 7.99 | 8.26 | 6.3 | 556 | 23.15 | 30.4 | 8 | 8.26 | 10.6 |
| Chem-LSU-1 | 29.75961 | -91.20750 | 10/12/2011 | 1238 | Mid Flat Lake | 0.7 | 556 | 26.13 | 20.6 | 7.93 | 7.72 | 5.1 | 555 | 25.48 | 27.6 | 7.92 | 7.72 | 8.3 |

# Table B4. Field parameter data collected by the USFWS

| Site ID | LSU ID | Date | Latitude | Longitude | Time | Site Description | EC (µS/cm) | Temp ( C) | Turb (NTU) | pH (su) | DO (% sat) | DO (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BB1 | A9 | 5/26/2011 | 30.38192306 | -91.58145833 | 1058 | Black Bayou 1 | 284 | 22.1 | 17.1 | 6.96 | 41.3 | 3.56 |
| BB2 | | 5/26/2011 | 30.38117472 | -91.57999083 | 1035 | Black Bayou 2 | 281 | 22.4 | 17.26 | 6.8 | 55.3 | 4.65 |
| KDE | A12 | 5/26/2011 | 30.3561 | -91.54741389 | 1139 | King's Ditch East | 280 | 22.5 | 21.2 | 7.83 | 42.8 | 3.67 |
| KDW | A13 | 5/26/2011 | 30.35500917 | -91.54848556 | 1126 | King's Ditch West | 281 | 22.5 | 18.77 | 7.02 | 43.4 | 3.71 |
| ND1 | A10 | 5/26/2011 | 30.3850425 | -91.57363361 | 1035 | North Drain 1 | 283 | 22.6 | 18.02 | 6.91 | 42.5 | 3.68 |
| ND2 | A11 | 5/26/2011 | 30.39091306 | -91.55242583 | 1017 | North Drain 2 | 284 | 22.7 | 20.4 | 6.94 | 101.7 | 7.7 |
| UF | A15 | 5/26/2011 | 30.23602833 | -91.44591028 | 1236 | Upper Flats | 273 | 24.3 | 15.2 | 7.08 | 35.3 | 2.86 |
| WC | A16 | 5/26/2011 | 30.38028167 | -91.55698278 | 1111 | Work Canal | 284 | 22.2 | 19.11 | 6.99 | 41 | 3.48 |
| WC+GR | A14 | 5/26/2011 | 30.24335722 | -91.52559389 | 1208 | Work Canal at Grand River | 282 | 22.6 | 16.4 | 6.85 | 31.2 | 2.67 |
| BB1 | A9 | 6/2/2011 | 30.38192306 | -91.58145833 | | Black Bayou 1 | 298 | 25.4 | 9.46 | 6.8 | 32.5 | 2.66 |
| ND1 | A10 | 6/2/2011 | 30.3850425 | -91.57363361 | 1057 | North Drain 1 | 298 | 25.8 | 9.5 | 6.75 | 34.2 | 2.91 |
| ND2 | A11 | 6/2/2011 | 30.39091306 | -91.55242583 | 1021 | North Drain 2 | 298 | 25 | 9.86 | 6.17 | 34.6 | 2.83 |
| UF | A15 | 6/2/2011 | 30.23602833 | -91.44591028 | 1345 | Upper Flats | 295 | 27.4 | 7.69 | 6.87 | 29.7 | 2.42 |
| WC | A16 | 6/2/2011 | 30.38028167 | -91.55698278 | 1136 | Work Canal | 299 | 25.3 | 8.6 | 6.88 | 35.5 | 2.88 |
| WC+GR | A14 | 6/2/2011 | 30.24335722 | -91.52559389 | 1245 | Work Canal at Grand River | 290 | 26 | 7.58 | 6.75 | 26.2 | 2.16 |
| BB1 | A9 | 6/9/2011 | 30.38192306 | -91.58145833 | 950 | Black Bayou 1 | 317 | 26.7 | 2.42 | 6.44 | 15.8 | 1.5 |
| BB2 | | 6/9/2011 | 30.38117472 | -91.57999083 | 942 | Black Bayou 2 | 324 | 26.6 | 3.15 | 6.47 | 17.8 | 1.46 |
| KDE | A12 | 6/9/2011 | 30.3561 | -91.54741389 | 1030 | King's Ditch East | 318 | 27.7 | 4.51 | 6.61 | 21.5 | 1.98 |
| KDW | A13 | 6/9/2011 | 30.35500917 | -91.54848556 | 1019 | King's Ditch West | 324 | 27.2 | 4.84 | 6.62 | 28.5 | 2.51 |
| ND1 | A10 | 6/9/2011 | 30.3850425 | -91.57363361 | 930 | North Drain 1 | 320 | 26.6 | 3.81 | 6.43 | 21.8 | 1.94 |
| ND2 | A11 | 6/9/2011 | 30.39091306 | -91.55242583 | 920 | North Drain 2 | 320 | 26.1 | 6.38 | 6.26 | 38.9 | 3.15 |
| UF | A15 | 6/9/2011 | 30.23602833 | -91.44591028 | 1127 | Upper Flats | 312 | 27.5 | 3.47 | 6.67 | 20.7 | 1.71 |
| WC | A16 | 6/9/2011 | 30.38028167 | -91.55698278 | 1003 | Work Canal | 324 | 26.8 | 4.04 | 6.5 | 25.6 | 2.11 |
| WC+GR | A14 | 6/9/2011 | 30.24335722 | -91.52559389 | 1101 | Work Canal at Grand River | 305 | 27.5 | 4.02 | 6.65 | 17.2 | 1.77 |
| BB1 | | 6/16/2011 | 30.38192306 | -91.58145833 | 835 | Black Bayou 1 | 317 | 26.8 | 3.75 | 6.23 | 23.4 | 1.71 |
| BB2 | | 6/16/2011 | 30.38117472 | -91.57999083 | 902 | Black Bayou 2 | 327 | 27.2 | 0.93 | 6.73 | 12.9 | 1.07 |
| KDE | | 6/16/2011 | 30.3561 | -91.54741389 | 1024 | King's Ditch East | 325 | 28.1 | 2.57 | 6.9 | 16 | 1.25 |
| KDW | | 6/16/2011 | 30.35500917 | -91.54848556 | 945 | King's Ditch West | 331 | 28 | 2.91 | 6.85 | 17.3 | 1.37 |
| ND1 | | 6/16/2011 | 30.3850425 | -91.57363361 | 910 | North Drain 1 | 327 | 27.3 | 0.67 | 6.83 | 16.8 | 1.3 |
| ND2 | | 6/16/2011 | 30.39091306 | -91.55242583 | 921 | North Drain 2 | 329 | 27.8 | 1.83 | 6.83 | 18.9 | 1.51 |
| UF | | 6/16/2011 | 30.23602833 | -91.44591028 | 1049 | Upper Flats | 317 | 27.4 | 2.31 | 6.82 | 13.6 | 1 |
| WC | | 6/16/2011 | 30.38028167 | -91.55698278 | 932 | Work Canal | 333 | 28 | 1.7 | 6.82 | 16.2 | 1.27 |
| WC+GR | | 6/16/2011 | 30.24335722 | -91.52559389 | 1020 | Work Canal at Grand River | 303 | 28.5 | 22.2 | 7.21 | 66.1 | 5.18 |
| BB1 | A9 | 6/23/2011 | 30.38192306 | -91.58145833 | 939 | Black Bayou 1 | 320 | 26.1 | 1.92 | 6.84 | 10.3 | 0.82 |
| BB2 | | 6/23/2011 | 30.38117472 | -91.57999083 | 1015 | Black Bayou 2 | 319 | 26.3 | 1.26 | 6.52 | 11.9 | 0.95 |
| KDE | A12 | 6/23/2011 | 30.3561 | -91.54741389 | 1146 | King's Ditch East | 318 | 26.5 | 2.93 | 6.93 | 10.4 | 0.81 |
| KDW | A13 | 6/23/2011 | 30.35500917 | -91.54848556 | 1131 | King's Ditch West | 316 | 26.9 | 1.88 | 6.94 | 8.7 | 0.74 |
| ND1 | A10 | 6/23/2011 | 30.3850425 | -91.57363361 | 1035 | North Drain 1 | 319 | 26.4 | 0.92 | 6.83 | 13.5 | 1.08 |
| ND2 | A11 | 6/23/2011 | 30.39091306 | -91.55242583 | 1054 | North Drain 2 | 322 | 26.8 | 1.54 | 6.85 | 13.8 | 1.11 |

| Site ID | LSU ID | Date | Latitude | Longitude | Time | Site Description | EC (µS/cm) | Temp ( C) | Turb (NTU) | pH (su) | DO (% sat) | DO (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UF | A15 | 6/23/2011 | 30.23602833 | -91.44591028 | 1255 | Upper Flats | 317 | 27.6 | 2.57 | 6.78 | 3 | 0.24 |
| WC | A16 | 6/23/2011 | 30.38028167 | -91.55698278 | 1113 | Work Canal | 315 | 26.5 | 1.79 | 6.9 | 11.6 | 0.93 |
| WC+GR | A14 | 6/23/2011 | 30.24335722 | -91.52559389 | 1223 | Work Canal at Grand River | 307 | 26.6 | 7.12 | 6.9 | 12.2 | 1.01 |
| BB1 | | 6/30/2011 | 30.38192306 | -91.58145833 | 1000 | Black Bayou 1 | 279 | 340 | | 7.23 | 12.7 | 0.99 |
| BB2 | | 6/30/2011 | 30.38117472 | -91.57999083 | 950 | Black Bayou 2 | 280 | 344 | | 7.34 | 17.5 | 1.39 |
| KDE | | 6/30/2011 | 30.3561 | -91.54741389 | 1128 | King's Ditch East | 283 | 340 | | 7.23 | 13.6 | 1.11 |
| KDW | | 6/30/2011 | 30.35500917 | -91.54848556 | 1113 | King's Ditch West | 281 | 329 | | 7.21 | 28.8 | 2.25 |
| ND1 | | 6/30/2011 | 30.3850425 | -91.57363361 | 1030 | North Drain 1 | 280 | 337 | | 7.25 | 18.6 | 1.45 |
| ND2 | | 6/30/2011 | 30.39091306 | -91.55242583 | | North Drain 2 | 288 | 340 | | 7.25 | 23.1 | 1.83 |
| UF | | 6/30/2011 | 30.23602833 | -91.44591028 | 1246 | Upper Flats | 283 | 338 | | 7.08 | 6.1 | 0.43 |
| WC | | 6/30/2011 | 30.38028167 | -91.55698278 | 1057 | Work Canal | 281 | 340 | | 7.23 | 15.1 | 1.24 |
| WC+GR | | 6/30/2011 | 30.24335722 | -91.52559389 | 1205 | Work Canal at Grand River | 272 | 328 | 9.4 | 7.22 | 37.2 | 1.62 |
| BB1 | A9 | 7/7/2011 | 30.38192306 | -91.58145833 | 939 | Black Bayou 1 | 328 | 26.7 | 3.05 | 7 | 22.9 | 1.83 |
| BB2 | | 7/7/2011 | 30.38117472 | -91.57999083 | 928 | Black Bayou 2 | 335 | 26.9 | 3.72 | 7.12 | 32.1 | 2.54 |
| KDE | A12 | 7/7/2011 | 30.3561 | -91.54741389 | 1112 | King's Ditch East | 328 | 27.2 | 6.83 | 7.04 | 17.2 | 1.36 |
| KDW | A13 | 7/7/2011 | 30.35500917 | -91.54848556 | 1059 | King's Ditch West | 315 | 27.4 | 2.11 | 6.92 | 9.7 | 0.73 |
| ND1 | A10 | 7/7/2011 | 30.3850425 | -91.57363361 | 1025 | North Drain 1 | 334 | 26.9 | 1.44 | 7.03 | 18.5 | 1.46 |
| ND2 | A11 | 7/7/2011 | 30.39091306 | -91.55242583 | 1008 | North Drain 2 | 333 | 27.6 | 1.41 | 7.03 | 25.9 | 2.03 |
| UF | A15 | 7/7/2011 | 30.23602833 | -91.44591028 | 1224 | Upper Flats | 323 | 27.9 | 2.39 | 6.81 | 7.4 | 0.61 |
| WC | A16 | 7/7/2011 | 30.38028167 | -91.55698278 | 1041 | Work Canal | 329 | 27.2 | 4.6 | 7.07 | 20.3 | 1.63 |
| WC+GR | A14 | 7/7/2011 | 30.24335722 | -91.52559389 | 1150 | Work Canal at Grand River | 325 | 27.4 | 9.87 | 6.99 | 26.6 | 2.1 |
| BB1 | na | 7/14/2011 | 30.38192306 | -91.58145833 | 914 | Black Bayou 1 | 350 | 28.5 | 7.22 | 6.92 | 22.4 | 1.73 |
| BB2 | | 7/14/2011 | 30.38117472 | -91.57999083 | 928 | Black Bayou 2 | 357 | 28.4 | 4.48 | 7 | 26.9 | 2.11 |
| KDE | | 7/14/2011 | 30.3561 | -91.54741389 | 1032 | King's Ditch East | 335 | 28.7 | 11.63 | 7 | 16 | 1.24 |
| KDW | | 7/14/2011 | 30.35500917 | -91.54848556 | 1025 | King's Ditch West | 328 | 28 | 3.23 | 6.83 | 6.8 | 0.55 |
| ND1 | | 7/14/2011 | 30.3850425 | -91.57363361 | 942 | North Drain 1 | 358 | 28 | 1.82 | 7.02 | 16.3 | 1.26 |
| ND2 | | 7/14/2011 | 30.39091306 | -91.55242583 | 955 | North Drain 2 | 360 | 28.3 | 1.4 | 7.01 | 18 | 1.4 |
| UF | | 7/14/2011 | 30.23602833 | -91.44591028 | 1136 | Upper Flats | 332 | 28 | 4.51 | 6.77 | 4.5 | 0.39 |
| WC | | 7/14/2011 | 30.38028167 | -91.55698278 | 1010 | Work Canal | 355 | 28.5 | 7.58 | 7.08 | 22.1 | 1.7 |
| WC+GR | | 7/14/2011 | 30.24335722 | -91.52559389 | 1110 | Work Canal at Grand River | 316 | 28.9 | 12.4 | 6.92 | 27.3 | 2.01 |
| BB1 | | 7/21/2011 | 30.38192306 | -91.58145833 | 950 | Black Bayou 1 | 316 | 27.6 | 9.39 | 7.01 | 32.9 | 2.58 |
| BB2 | | 7/21/2011 | 30.38117472 | -91.57999083 | 1005 | Black Bayou 2 | 333 | 27.3 | 5.2 | 7.07 | 36.1 | 2.86 |
| KDE | | 7/21/2011 | 30.3561 | -91.54741389 | 1121 | King's Ditch East | 309 | 27.7 | 9.57 | 6.94 | 24.5 | 1.92 |
| KDW | | 7/21/2011 | 30.35500917 | -91.54848556 | 1108 | King's Ditch West | 294 | 27.3 | 2.29 | 6.82 | 13.1 | 1.05 |
| ND1 | ND1 | 7/21/2011 | 30.3850425 | -91.57363361 | 1019 | North Drain 1 | 317 | 27.2 | 2.36 | 6.99 | 29.2 | 2.29 |
| ND2 | | 7/21/2011 | 30.39091306 | -91.55242583 | 1035 | North Drain 2 | 301 | 27.5 | 2.92 | 6.97 | 29.5 | 2.33 |
| UF | | 7/21/2011 | 30.23602833 | -91.44591028 | 1236 | Upper Flats | 330 | 27.5 | 9.61 | 6.8 | 6.9 | 0.53 |
| WC | WC | 7/21/2011 | 30.38028167 | -91.55698278 | 1050 | Work Canal | 321 | 28.3 | 10.33 | 7.08 | 30 | 2.34 |
| WC+GR | WC+GR | 7/21/2011 | 30.24335722 | -91.52559389 | 1152 | Work Canal at Grand River | 304 | 27.9 | 15.68 | 6.94 | 32.1 | 2.51 |
| BB1 | A9 | 8/4/2011 | 30.38192306 | -91.58145833 | | Black Bayou 1 | 317 | 28.8 | 18.86 | 6.84 | 42.3 | 3.27 |

| Site ID | LSU ID | Date | Latitude | Longitude | Time | Site Description | EC (µS/cm) | Temp ( C) | Turb (NTU) | pH (su) | DO (% sat) | DO (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BB2 | | 8/4/2011 | 30.38117472 | -91.57999083 | 935 | Black Bayou 2 | NA | 28.1 | 6.86 | 6.98 | 28.5 | 2.79 |
| KDE | A12 | 8/4/2011 | 30.3561 | -91.54741389 | 1105 | King's Ditch East | 298 | 28.7 | 15.9 | 6.83 | 27.9 | 2.14 |
| KDW | A13 | 8/4/2011 | 30.35500917 | -91.54848556 | 1050 | King's Ditch West | 278 | 28.5 | 4.8 | 6.69 | 11.3 | 1.29 |
| ND1 | A10 | 8/4/2011 | 30.3850425 | -91.57363361 | 955 | North Drain 1 | 322 | 28.3 | 14.71 | 7.06 | 35.3 | 2.73 |
| ND2 | A11 | 8/4/2011 | 30.39091306 | -91.55242583 | 1010 | North Drain 2 | 306 | 28.2 | 12.89 | 7.04 | 39.4 | 3.06 |
| UF | A15 | 8/4/2011 | 30.23602833 | -91.44591028 | 1245 | Upper Flats | 316 | 28.9 | 10.13 | 6.78 | 6.4 | 0.48 |
| WC | A16 | 8/4/2011 | 30.38028167 | -91.55698278 | 1030 | Work Canal | 316 | 29.2 | 13.18 | 7.07 | 43.3 | 3.32 |
| WC+GR | A14 | 8/4/2011 | 30.24335722 | -91.52559389 | 1320 | Work Canal at Grand River | 302 | 28.6 | 27 | 7.01 | 42.3 | 3.31 |
| BB1 | A9 | 09/08/11 | 30.38192306 | -91.58145833 | 1130 | Black Bayou 1 | 229 | 21.7 | 19.30 | 6.65 | 49.8 | 4.38 |
| BB2 | | 09/08/11 | 30.38117472 | -91.57999083 | 1115 | Black Bayou 2 | 232 | 20.6 | 6.30 | 6.60 | 38.9 | 3.51 |
| KDE | A12 | 09/08/11 | 30.3561 | -91.54741389 | 1235 | King's Ditch East | 283 | 22.7 | 17.10 | 6.78 | 37.5 | 3.25 |
| KDW | A13 | 09/08/11 | 30.35500917 | -91.54848556 | 1210 | King's Ditch West | 297 | 21.7 | 8.50 | 6.22 | 20.6 | 1.84 |
| ND2 | A11 | 09/08/11 | 30.39091306 | -91.55242583 | 1045 | North Drain 2 | 207 | 21.0 | 5.10 | 6.51 | 54.3 | 4.84 |
| WC | A16 | 09/08/11 | 30.38028167 | -91.55698278 | 1155 | Work Canal | 244 | 22.9 | 134.00 | 6.75 | 51.0 | 4.38 |
| BB1 | A9 | 10/13/11 | 30.38192306 | -91.58145833 | 1032 | Black Bayou 1 | 297 | 22.8 | 46.20 | 7.07 | 35.9 | 3.09 |
| BB2 | | 10/13/11 | 30.38117472 | -91.57999083 | 1052 | Black Bayou 2 | 294 | 23.2 | 35.10 | 6.91 | 23.8 | 2.07 |
| KDE | A12 | 10/13/11 | 30.3561 | -91.54741389 | 1207 | King's Ditch East | 397 | 24.5 | 31.40 | 7.08 | 39.6 | 3.26 |
| KDW | A13 | 10/13/11 | 30.35500917 | -91.54848556 | 1145 | King's Ditch West | 662 | 23.2 | 32.20 | 6.71 | 37.7 | 3.23 |
| ND2 | A11 | 10/13/11 | 30.39091306 | -91.55242583 | 1240 | North Drain 2 | 291 | 24.5 | 35.10 | 7.01 | 97.6 | 8.39 |
| WC | A16 | 10/13/11 | 30.38028167 | -91.55698278 | 1110 | Work Canal | 279 | 24.1 | 23.90 | 7.23 | 79.4 | 6.59 |

## Table B5. Field parameter data collected by LSU 's School of Renewable Natural Resources (Dr. William Kelso)

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HN10 | 2/2/2011 | 11.4 | 9.21 | 0.257 | 8.07 | 0.191 | 16.5 | 11.4 | 9.24 | 0.257 | 8.1 | 0.762 | 16.7 | 11.26 | 9.24 | 0.258 | 7.39 | 1.51 | 30.5 |
| HN11 | 2/2/2011 | 10.51 | 9.2 | 0.229 | 9.3 | 0.255 | 101.3 | 10.5 | 9.19 | 0.23 | 9.27 | 0.729 | 100.9 | 10.51 | 9.22 | 0.231 | 9.23 | 1.064 | 100.2 |
| HN12 | 2/2/2011 | 10.97 | 9.16 | 0.23 | 8.89 | 0.277 | 103.4 | 10.96 | 9.15 | 0.231 | 8.83 | 2.319 | 104.3 | 10.96 | 9.12 | 0.231 | 8.87 | 4.543 | 106.6 |
| HN13 | 2/2/2011 | 11.11 | 9.18 | 0.231 | 8.87 | 0.249 | 107.1 | 11.1 | 9.17 | 0.231 | 8.88 | 1.518 | 107.3 | 11.11 | 9.16 | 0.231 | 8.92 | 3.2 | 113.9 |
| HN14 | 2/2/2011 | 11.08 | 9.14 | 0.234 | 8.71 | 0.185 | 105.7 | 11.09 | 9.14 | 0.234 | 8.72 | 0.59 | 106.2 | 11.07 | 9.12 | 0.234 | 8.81 | 1.318 | 107 |
| HN15 | 2/2/2011 | 10.68 | 9.31 | 0.171 | 8.92 | 0.253 | 99.7 | 10.64 | 9.32 | 0.171 | 8.94 | 1.882 | 104.1 | 10.55 | 9.34 | 0.172 | 9 | 2.724 | 120.2 |
| HN16 | 2/2/2011 | 9 | 9.19 | 0.236 | 7.68 | 0.282 | 72.8 | 8.89 | 9.21 | 0.242 | 7.56 | 2.166 | 70.1 | 8.72 | 9.2 | 0.246 | 7.64 | 5.333 | 69 |
| HN5 | 2/2/2011 | 11.18 | 9.11 | 0.172 | 9.01 | 0.276 | 92 | 11.19 | 9.08 | 0.172 | 9.05 | 2.562 | 97.8 | 11.19 | 8.89 | 0.174 | 9.15 | 5.339 | 92 |
| HN8 | 2/2/2011 | 9.83 | 8.97 | 0.277 | 5.32 | 0.254 | 35 | 9.52 | 8.99 | 0.283 | 4.41 | 2.047 | 30 | 8.88 | 9 | 0.315 | 0.7 | 4.092 | 12.5 |
| HN9 | 2/2/2011 | 10.41 | 9.05 | 0.227 | 4.93 | 0.212 | 84.7 | 10.29 | 9.09 | 0.227 | 4.75 | 1.242 | 83.3 | 9.75 | 9.08 | 0.254 | 3.2 | 3.386 | 90.3 |
| HN31 | 2/8/2011 | 9 | 8.89 | 0.312 | 8.48 | 0.097 | 29.9 | 8.43 | 8.92 | 0.311 | 9.09 | 0.796 | 32.5 | 8.29 | 8.91 | 0.305 | 10.37 | 1.649 | 48.2 |
| HN32 | 2/8/2011 | 7.87 | 9.05 | 0.399 | 9.46 | 0.094 | 3.2 | 7.9 | 9.06 | 0.482 | 7.66 | 1.11 | 3 | 7.84 | 9.06 | 0.574 | 6.1 | 1.813 | 28.8 |
| HN33 | 2/8/2011 | 7.85 | 9.04 | 0.247 | 9.56 | 0.105 | 33.5 | 7.72 | 9.06 | 0.249 | 9.84 | 0.969 | 33.2 | 7.66 | 9.03 | 0.249 | 10.51 | 2.12 | 36.6 |
| HN35 | 2/8/2011 | 8.34 | 9.07 | 0.305 | 8.18 | 0.098 | 7.5 | 7.86 | 9.08 | 0.305 | 7.93 | 2.241 | 7.8 | 7.69 | 9.07 | 0.304 | 8.03 | 3.607 | 7.6 |
| HN36 | 2/8/2011 | 7.46 | 9.12 | 0.248 | 9.31 | 0.105 | 40.5 | 7.48 | 9.12 | 0.247 | 9.18 | 1.117 | 43.5 | 7.15 | 9.14 | 0.248 | 9.28 | 1.486 | 59.1 |
| HN37 | 2/8/2011 | 8.61 | 9.12 | 0.241 | 9.18 | 0.094 | 45.9 | 7.12 | 9.16 | 0.235 | 9.43 | 2.05 | 47.3 | 7.06 | 9.15 | 0.233 | 9.65 | 3.755 | 53.7 |
| HN38 | 2/8/2011 | 9.03 | 9 | 0.325 | 8.97 | 0.105 | 10.1 | 8.75 | 9.01 | 0.326 | 8.78 | 1.298 | 10.4 | 8.19 | 9.04 | 0.324 | 8.33 | 2.697 | 9.3 |
| HN39 | 2/8/2011 | 8.35 | 9.04 | 0.311 | 9.06 | 0.101 | 3.7 | 7.7 | 9.05 | 0.311 | 9.08 | 1.25 | 4.9 | 7.57 | 9.05 | 0.311 | 9.2 | 2.485 | 16.2 |
| HN40 | 2/8/2011 | 8.56 | 9.01 | 0.255 | 9.46 | 0.1 | 33.4 | 7.75 | 9.03 | 0.249 | 9.79 | 0.954 | 35.2 | 7.94 | 9.02 | 0.25 | 10.04 | 1.667 | 64.1 |
| HN41 | 2/8/2011 | 7.89 | 9.06 | 0.238 | 10.83 | 0.098 | 31.9 | 7.69 | 9.08 | 0.238 | 10.87 | 1.871 | 31.7 | 7.68 | 9.07 | 0.238 | 10.88 | 3.577 | 34.8 |
| HN42 | 2/8/2011 | 8.23 | 8.95 | 0.224 | 9.1 | 0.107 | 47.1 | 7.63 | 8.96 | 0.222 | 9.26 | 1.015 | 47.6 | 7.26 | 8.98 | 0.218 | 10.27 | 1.953 | 57.4 |
| HN43 | 2/8/2011 | 8.13 | 9.05 | 0.251 | 12.32 | 0.096 | 5.2 | 7.65 | 9.05 | 0.248 | 12.22 | 1.011 | 6.9 | 7.36 | 9.05 | 0.248 | 11.87 | 2.034 | 11.8 |
| HN44 | 2/8/2011 | 9.38 | 8.92 | 0.258 | 8.55 | 0.106 | 6.5 | 7.87 | 8.97 | 0.256 | 8.7 | 1.415 | 7 | 7.5 | 8.96 | 0.254 | 9.83 | 2.823 | 7.9 |
| HN18 | 2/10/2011 | 7.07 | 9.29 | 0.23 | 7.95 | 0.109 | 46 | 7.09 | 9.33 | 0.23 | 8.01 | 0.72 | 47.7 | 7.05 | 9.32 | 0.23 | 8.17 | 1.408 | 50.5 |
| HN20 | 2/10/2011 | 7.07 | 9.39 | 0.231 | 9.33 | 0.107 | 64.2 | 7.06 | 9.4 | 0.232 | 9.35 | 1.243 | 69.6 | 7.05 | 9.43 | 0.231 | 9.44 | 2.465 | 63.9 |
| HN21 | 2/10/2011 | 7.03 | 9.42 | 0.226 | 8.81 | 0.115 | 60 | 6.96 | 9.46 | 0.226 | 8.84 | 0.84 | 64.7 | 6.93 | 9.47 | 0.226 | 9 | 1.759 | 66.6 |
| HN22 | 2/10/2011 | 6.97 | 9.45 | 0.204 | 8.31 | 0.11 | 61.3 | 6.9 | 9.5 | 0.204 | 8.48 | 1.017 | 61 | 6.89 | 9.5 | 0.205 | 8.61 | 2.126 | 59.9 |
| HN23 | 2/10/2011 | 7.08 | 9.55 | 0.226 | 8.1 | 0.107 | 55 | 7.07 | 9.6 | 0.226 | 8.14 | 1.49 | 55 | 7.05 | 9.66 | 0.226 | 8.46 | 2.918 | 90.6 |
| HN24 | 2/10/2011 | 7.16 | 9.59 | 0.481 | 7.99 | 0.108 | 4.6 | 7.16 | 9.64 | 0.481 | 8.08 | 0.539 | 7.9 | 7.16 | 9.68 | 0.484 | 8.38 | 1.19 | 30.9 |
| HN25 | 2/10/2011 | 7.07 | 9.33 | 0.209 | 9.06 | 0.097 | 43.9 | 7.06 | 9.41 | 0.21 | 9.09 | 1.296 | 45.8 | 6.87 | 9.47 | 0.209 | 9.21 | 2.689 | 45.3 |
| HN26 | 2/10/2011 | 8.01 | 9.54 | 0.37 | 9.07 | 0.101 | 16.8 | 7.99 | 9.61 | 0.37 | 9.02 | 1.64 | 17.4 | 7.99 | 9.65 | 0.37 | 9.13 | 3.254 | 17.7 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HN27 | 2/10/2011 | 7.79 | 9.23 | 0.22 | 9.17 | 0.108 | 58.4 | 7.76 | 9.29 | 0.22 | 9.13 | 3.167 | 58.4 | 7.74 | 9.27 | 0.22 | 8.92 | 6.343 | 61.4 |
| HN28 | 2/10/2011 | 7.49 | 9 | 0.22 | 5.76 | 0.115 | 15.3 | 7.5 | 9.04 | 0.22 | 5.84 | 1.384 | 15.1 | 7.5 | 9.02 | 0.221 | 6.81 | 2.919 | 83.7 |
| HN29 | 2/10/2011 | 8.06 | 9 | 0.232 | 7.11 | 0.109 | 9.4 | 8.01 | 9.05 | 0.233 | 7.13 | 1.762 | 9.4 | 7.96 | 9.06 | 0.233 | 7.33 | 3.533 | 10.9 |
| HN3 | 2/10/2011 | 7.97 | 9.37 | 0.512 | 11.08 | 0.109 | 10.2 | 7.89 | 9.39 | 0.515 | 10.99 | 0.747 | 10.2 | 7.79 | 9.41 | 0.542 | 8.29 | 1.394 | 9.8 |
| HN30 | 2/10/2011 | 8 | 8.96 | 0.244 | 8.91 | 0.128 | 91.4 | 8 | 8.93 | 0.244 | 8.77 | 1.075 | 92.2 | 8 | 8.86 | 0.245 | 8.75 | 1.989 | 88.3 |
| HN10 | 2/15/2011 | 13.03 | 9.34 | 0.261 | 8.25 | 0.063 | 4.7 | 11.46 | 9.38 | 0.269 | 7.8 | 0.728 | 4.5 | 9.85 | 9.46 | 0.276 | 6.14 | 1.45 | 14.7 |
| HN11 | 2/15/2011 | 10.15 | 9.31 | 0.264 | 5.9 | 0.151 | 52.5 | 8.98 | 9.4 | 0.263 | 5.81 | 1.356 | 58.4 | 8.96 | 9.39 | 0.262 | 5.92 | 2.835 | 73.8 |
| HN12 | 2/15/2011 | 9.9 | 9.37 | 0.268 | 6.03 | 0.092 | 47.3 | 9.21 | 9.39 | 0.27 | 5.89 | 2.037 | 45.9 | 8.8 | 9.41 | 0.264 | 5.98 | 4.066 | 58.9 |
| HN13 | 2/15/2011 | 9.57 | 9.43 | 0.269 | 6.11 | 0.112 | 54.1 | 8.73 | 9.46 | 0.267 | 6.13 | 1.423 | 56.9 | 8.63 | 9.48 | 0.265 | 6.23 | 2.783 | 57.9 |
| HN14 | 2/15/2011 | 11.35 | 9.34 | 0.259 | 5.39 | 0.104 | 35 | 10.18 | 9.42 | 0.262 | 5.78 | 0.504 | 44.8 | 10.1 | 9.44 | 0.258 | 6.2 | 0.984 | 70.3 |
| HN15 | 2/15/2011 | 9.26 | 9.51 | 0.189 | 5.99 | 0.102 | 67.3 | 6.77 | 9.61 | 0.183 | 6.14 | 1.117 | 73.8 | 6.6 | 9.61 | 0.182 | 6.12 | 2.202 | 84.7 |
| HN16 | 2/15/2011 | 9.53 | 9.4 | 0.246 | 5.28 | 0.115 | 53.2 | 9.51 | 9.42 | 0.246 | 5.42 | 1.723 | 52.1 | 9.5 | 9.45 | 0.244 | 5.47 | 3.232 | 51.3 |
| HN5 | 2/15/2011 | 8.97 | 9.56 | 0.236 | 6.72 | 0.136 | 67.6 | 8.83 | 9.5 | 0.238 | 6.59 | 2.542 | 67.8 | 8.24 | 9.58 | 0.217 | 6.44 | 5.136 | 73.2 |
| HN7 | 2/15/2011 | 8.78 | 9.27 | 0.347 | 5.54 | 0.124 | 1.7 | 8.7 | 9.27 | 0.346 | 5.63 | 0.775 | 1.7 | 8.73 | 9.28 | 0.345 | 5.79 | 1.599 | 5.2 |
| HN8 | 2/15/2011 | 11.72 | 9.22 | 0.324 | 6.69 | 0.109 | 5.5 | 7.7 | 9.32 | 0.35 | 5.26 | 1.652 | 3 | 6.83 | 9.33 | 0.357 | 4.44 | 3.318 | 2.8 |
| HN9 | 2/15/2011 | 12.05 | 9.31 | 0.32 | 7.88 | 0.1 | 5.9 | 9.02 | 9.37 | 0.338 | 6.47 | 1.15 | 4.8 | 8.1 | 9.43 | 0.337 | 5.96 | 2.256 | 7.3 |
| HN32 | 2/16/2011 | 12.63 | 9.63 | 0.4 | 7.09 | 0.064 | 2.7 | 11.91 | 9.64 | 0.426 | 6.97 | 0.872 | 2.2 | 9.37 | 9.73 | 0.532 | 8.66 | 1.635 | 3.5 |
| HN33 | 2/16/2011 | 10.43 | 9.48 | 0.242 | 5.93 | 0.148 | 33.7 | 10.45 | 9.48 | 0.241 | 6 | 1.169 | 34.1 | 10.34 | 9.49 | 0.238 | 6.45 | 1.996 | 34.3 |
| HN35 | 2/16/2011 | 11.21 | 9.5 | 0.304 | 7.39 | 0.161 | 5.6 | 8.84 | 9.62 | 0.299 | 5.65 | 1.88 | 7.2 | 8.19 | 9.69 | 0.295 | 2.83 | 3.785 | 22.9 |
| HN36 | 2/16/2011 | 12.65 | 9.47 | 0.284 | 7.41 | 0.136 | 5.1 | 12.27 | 9.48 | 0.282 | 7.36 | 0.995 | 5.6 | 8.98 | 9.61 | 0.274 | 5.32 | 1.782 | 14.8 |
| HN37 | 2/16/2011 | 9.83 | 9.59 | 0.25 | 6.49 | 0.157 | 36.9 | 9.09 | 9.63 | 0.252 | 6.23 | 2.013 | 41.4 | 7.93 | 9.71 | 0.271 | 5.89 | 3.826 | 39.7 |
| HN38 | 2/16/2011 | 12.05 | 9.61 | 0.313 | 7.92 | 0.196 | 4.9 | 11.66 | 9.62 | 0.311 | 7.63 | 1.413 | 5.9 | 9.51 | 9.7 | 0.337 | 4.84 | 2.828 | 7.8 |
| HN39 | 2/16/2011 | 11.81 | 9.56 | 0.331 | 8.56 | 0.226 | 1.9 | 10.65 | 9.6 | 0.332 | 8.05 | 1.133 | 2.8 | 8.56 | 9.65 | 0.329 | 6.21 | 2.221 | 22 |
| HN40 | 2/16/2011 | 13.44 | 9.38 | 0.298 | 7.76 | 0.135 | 18.2 | 12.62 | 9.39 | 0.288 | 7.19 | 0.895 | 22.2 | 10.6 | 9.43 | 0.25 | 6.35 | 1.69 | 44.3 |
| HN41 | 2/16/2011 | 10.98 | 9.43 | 0.233 | 6.84 | 0.132 | 36 | 10.6 | 9.47 | 0.232 | 6.85 | 1.431 | 36.4 | 10.52 | 9.45 | 0.231 | 6.85 | 2.653 | 35.8 |
| HN42 | 2/16/2011 | 10.92 | 9.3 | 0.227 | 6.7 | 0.156 | 40.8 | 10.7 | 9.32 | 0.227 | 6.57 | 0.954 | 41.2 | 10.13 | 9.36 | 0.226 | 6.56 | 1.795 | 40.6 |
| HN43 | 2/16/2011 | 13.09 | 9.4 | 0.247 | 9.07 | 0.125 | 8.8 | 10.57 | 9.39 | 0.25 | 7.69 | 1.726 | 5 | 8.01 | 9.49 | 0.245 | 6.42 | 3.385 | 17.4 |
| HN44 | 2/16/2011 | 12.38 | 9.32 | 0.243 | 8 | 0.112 | 9.4 | 12.23 | 9.32 | 0.242 | 7.84 | 1.326 | 9.5 | 11.53 | 9.34 | 0.237 | 7.17 | 2.665 | 9.6 |
| HN1 | 2/17/2011 | 13.72 | 7.35 | 0.245 | 0.33 | 0.16 | 39.4 | 12.39 | 7.35 | 0.253 | 0.34 | 1.521 | 40.6 | 12.01 | 7.4 | 0.256 | 0.34 | 3.013 | 43.1 |
| HN18 | 2/17/2011 | 12.16 | 7.34 | 0.26 | 0.5 | 0.159 | 41.5 | 12.07 | 7.36 | 0.259 | 0.52 | 1.285 | 41.4 | 12.07 | 7.39 | 0.26 | 0.55 | 2.545 | 48.7 |
| HN19 | 2/17/2011 | 12.22 | 7.24 | 0.139 | 0.26 | 0.159 | 35.4 | 11.9 | 7.28 | 0.255 | 0.2 | 0.561 | 37.8 | 10.83 | 7.32 | 0.255 | 0.17 | 1.013 | 39.6 |
| HN20 | 2/17/2011 | 13.54 | 7.3 | 0.357 | 0.46 | 0.159 | 14.5 | 13.19 | 7.29 | 0.381 | 0.38 | 0.782 | 14.2 | 11.32 | 7.15 | 0.609 | 0.27 | 1.426 | 8.5 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HN21 | 2/17/2011 | 13.4 | 7.27 | 0.117 | 0.34 | 0.159 | 42.6 | 12.97 | 7.32 | 0.227 | 0.32 | 1.105 | 43.8 | 12.79 | 7.36 | 0.233 | 0.33 | 2.299 | 45.4 |
| HN22 | 2/17/2011 | 12.97 | 7.24 | 0.247 | 0.46 | 0.184 | 33.3 | 11.36 | 7.27 | 0.245 | 0.36 | 1.669 | 42.9 | 8.18 | 7.35 | 0.239 | 0.31 | 3.019 | 55.6 |
| HN23 | 2/17/2011 | 12.86 | 7.29 | 0.213 | 0.48 | 0.159 | 42.3 | 12.64 | 7.29 | 0.212 | 0.4 | 1.448 | 41 | 10.22 | 7.31 | 0.221 | 0.33 | 2.764 | 53.4 |
| HN24 | 2/17/2011 | 12.3 | 7.37 | 0.364 | 0.33 | 0.169 | 14.4 | 12.05 | 7.33 | 0.365 | 0.27 | 1.431 | 44.5 | 11.37 | 7.29 | 0.443 | 0.16 | 3.016 | 24.9 |
| HN25 | 2/17/2011 | 11.77 | 7.2 | 0.231 | 0.26 | 0.156 | 43.3 | 10.29 | 7.22 | 0.229 | 0.22 | 3.142 | 46.4 | 8.42 | 7.32 | 0.23 | 0.21 | 6.345 | 48.5 |
| HN26 | 2/17/2011 | 12.55 | 7.33 | 0.259 | 0.4 | 0.166 | 28.5 | 11.84 | 7.35 | 0.257 | 0.37 | 0.776 | 30.9 | 10.27 | 7.41 | 0.257 | 0.37 | 1.366 | 31.7 |
| HN27 | 2/17/2011 | 13.19 | 7.24 | 0.219 | 0.58 | 0.156 | 5.6 | 8.47 | 7.24 | 0.228 | 0.22 | 1.774 | 7.3 | 7.51 | 7.29 | 0.233 | 0.25 | 3.641 | 14.6 |
| HN28 | 2/17/2011 | 11.71 | 7.28 | 0.231 | 0.3 | 0.165 | 34 | 9.91 | 7.31 | 0.234 | 0.24 | 1.201 | 44.8 | 8.66 | 7.38 | 0.241 | 0.21 | 2.35 | 63.5 |
| HN29 | 2/17/2011 | 13.01 | 7.19 | 0.225 | 0.28 | 0.156 | 7.2 | 10.4 | 7.29 | 0.208 | 0.19 | 1.433 | 19.3 | 7.29 | 7.34 | 0.228 | 0.2 | 2.889 | 165.4 |
| HN3 | 2/17/2011 | 12.86 | 7.27 | 0.247 | 0.42 | 0.157 | 43.3 | 12.41 | 7.31 | 0.247 | 0.44 | 0.844 | 43.7 | 12.34 | 7.34 | 0.247 | 0.45 | 1.625 | 43.5 |
| HN30 | 2/17/2011 | 13.66 | 7.24 | 0.439 | 0.26 | 0.159 | 18.2 | 13.45 | 7.22 | 0.444 | 0.2 | 0.773 | 25.8 | 12.84 | 7.22 | 0.492 | 0.16 | 1.397 | 1 |
| HN31 | 2/17/2011 | 11.58 | 7.33 | 0.328 | 0.15 | 0.155 | 30.1 | 11.52 | 7.34 | 0.328 | 0.15 | 0.798 | 30.1 | 11.36 | 7.36 | 0.327 | 0.12 | 1.691 | 26.8 |
| HN11 | 3/2/2011 | 19.23 | 7.96 | 0.321 | 5.5 | 0.101 | 1748.9 | 19.06 | 7.99 | 0.321 | 5.39 | 0.888 | 1746.6 | 18.95 | 8.04 | 0.32 | 5.27 | 1.796 | 1744.9 |
| HN12 | 3/2/2011 | 19.46 | 7.87 | 0.309 | 5.3 | 0.116 | 1752.5 | 19.09 | 7.91 | 0.307 | 4.81 | 1.668 | 1747.1 | 17.58 | 8.01 | 0.305 | 3.37 | 3.433 | 1725.8 |
| HN13 | 3/2/2011 | 19.63 | 7.88 | 0.304 | 5.45 | 0.146 | 1754.9 | 19.4 | 7.92 | 0.304 | 5.09 | 1.38 | 1751.6 | 19.3 | 7.99 | 0.305 | 5.05 | 2.696 | 1750.2 |
| HN14 | 3/2/2011 | 19.46 | 8.03 | 0.3 | 6.49 | 0.094 | 1752.4 | | | | | | | 19.24 | 8.09 | 0.299 | 6.05 | 0.961 | 1749.3 |
| HN15 | 3/2/2011 | 17.36 | 7.97 | 0.405 | 7.68 | 0.109 | 1723.3 | 17.34 | 7.97 | 0.405 | 7.68 | 0.71 | 1722.9 | 17.21 | 7.98 | 0.405 | 7.67 | 1.555 | 1721.1 |
| HN16 | 3/2/2011 | 17.75 | 7.82 | 0.348 | 5.93 | 0.109 | 1728.8 | 17.76 | 7.85 | 0.348 | 5.92 | 1.135 | 1728.8 | 17.72 | 7.9 | 0.348 | 5.95 | 2.385 | 1728.4 |
| HN5 | 3/2/2011 | 13.36 | 7.68 | 0.517 | 7.89 | 0.101 | 1667.1 | 13.33 | 7.63 | 0.517 | 7.87 | 2.272 | 1666.7 | 13.3 | 7.5 | 0.518 | 7.8 | 4.426 | 1666.3 |
| HN1 | 3/3/2011 | 17.81 | 7.12 | 0.401 | 11.03 | 0.112 | 42.3 | 17.63 | 7.11 | 0.401 | 11.12 | 0.73 | 43.9 | 17.64 | 7.08 | 0.401 | 11.52 | 1.088 | 56.5 |
| HN18 | 3/3/2011 | 19.24 | 7.05 | 0.506 | 7.83 | 0.124 | 10.1 | 19.1 | 7.04 | 0.506 | 8.03 | 0.554 | 13 | 18.81 | 7.01 | 0.509 | 8.26 | 1.085 | 21.8 |
| HN19 | 3/3/2011 | 17.64 | 7.14 | 0.402 | 10.82 | 0.119 | 43.7 | 17.63 | 7.13 | 0.402 | 10.89 | 0.714 | 45.7 | 17.63 | 7.1 | 0.402 | 11.23 | 1.409 | 46.5 |
| HN20 | 3/3/2011 | 19.3 | 7.03 | 0.384 | 10.72 | 0.109 | 29.7 | 18.57 | 7.03 | 0.391 | 11.08 | 1.5 | 33.7 | 18.05 | 7.03 | 0.387 | 11.42 | 3.102 | 46.3 |
| HN21 | 3/3/2011 | 18.53 | 6.9 | 0.348 | 10.16 | 0.117 | 20 | 18.28 | 6.92 | 0.344 | 9.68 | 0.575 | 27.2 | 17.12 | 6.97 | 0.338 | 10.68 | 1.151 | 39.8 |
| HN22 | 3/3/2011 | 18.91 | 6.95 | 0.355 | 10.43 | 0.104 | 21.2 | 18.54 | 6.95 | 0.356 | 10.62 | 0.608 | 21.4 | 18.2 | 6.97 | 0.354 | 10.78 | 1.246 | 22.1 |
| HN23 | 3/3/2011 | 19.25 | 6.79 | 0.343 | 8.3 | 0.115 | 7.9 | 19.11 | 6.81 | 0.344 | 8.82 | 0.962 | 8.9 | 16.07 | 6.86 | 0.364 | 10.65 | 1.948 | 25.9 |
| HN25 | 3/3/2011 | 19.79 | 6.98 | 0.32 | 10.6 | 0.104 | 13.1 | | | | | | | 19.76 | 6.95 | 0.319 | 10.19 | 0.855 | 68.6 |
| HN26 | 3/3/2011 | 20.37 | 7.14 | 0.405 | 7.53 | 0.111 | 10.6 | 19.85 | 7.09 | 0.408 | 7.84 | 1.793 | 12 | 19.21 | 7.01 | 0.469 | 6.87 | 3.707 | 1116.7 |
| HN27 | 3/3/2011 | 19.73 | 6.96 | 0.308 | 9.44 | 0.121 | 12.5 | 19.28 | 6.93 | 0.308 | 7.86 | 2.635 | 17.8 | 18.99 | 6.92 | 0.309 | 7.52 | 5.344 | 65.1 |
| HN28 | 3/3/2011 | 19.1 | 6.75 | 0.249 | 8.49 | 0.101 | 5 | 18.24 | 6.82 | 0.25 | 3.82 | 1.343 | 5.9 | 15.34 | 6.97 | 0.267 | 8.98 | 2.444 | 9.1 |
| HN29 | 3/3/2011 | 19.18 | 6.7 | 0.245 | 9.84 | 0.104 | 5.2 | 18.97 | 6.68 | 0.245 | 7.39 | 1.32 | 5.2 | 14.41 | 6.67 | 0.264 | 6 | 2.652 | 204.3 |
| HN3 | 3/3/2011 | 18.73 | 6.9 | 0.418 | 10.73 | 0.113 | 16.5 | 18.72 | 6.9 | 0.419 | 10.85 | 0.626 | 16.8 | 17.88 | 6.94 | 0.39 | 10.85 | 1.342 | 26.7 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HN30 | 3/3/2011 | 18.75 | 7.03 | 0.251 | 10.06 | 0.106 | 121.5 | 18.74 | 7.06 | 0.251 | 8.83 | 0.508 | 113 | 18.73 | 7.07 | 0.251 | 7.86 | 1.049 | 110.5 |
| HN31 | 3/3/2011 | 18.18 | 7.11 | 0.295 | 5.52 | 0.095 | 78 | 18.12 | 7.11 | 0.296 | 5.51 | 0.841 | 78.1 | 18.02 | 7.11 | 0.298 | 5.61 | 1.391 | 128 |
| HN32 | 3/3/2011 | 17.89 | 7.06 | 0.494 | 3.88 | 0.092 | -24.1 | 17.38 | 7.01 | 0.511 | 3.26 | 0.643 | -23.7 | 15.36 | 6.9 | 0.52 | 0.77 | 1.254 | -17.2 |
| HN33 | 3/3/2011 | 18.63 | 7.13 | 0.241 | 4.48 | 0.12 | -1.4 | 18.04 | 7.16 | 0.24 | 4.12 | 0.976 | 2.6 | 17.73 | 7.19 | 0.239 | 4.03 | 1.919 | 19.8 |
| HN35 | 3/3/2011 | 18.98 | 6.91 | 0.289 | 3.21 | 0.117 | -8.2 | 18.65 | 6.91 | 0.289 | 2.48 | 1.551 | -9.2 | 17.98 | 6.89 | 0.292 | 0.56 | 3.172 | 6.2 |
| HN36 | 3/3/2011 | 19.09 | 6.96 | 0.295 | 3.78 | 0.106 | -25.6 | 17.92 | 6.9 | 0.295 | 2.15 | 0.729 | -22.7 | 17.26 | 6.84 | 0.294 | 0.8 | 1.42 | 4.4 |
| HN37 | 3/3/2011 | 19.27 | 7.13 | 0.251 | 5.47 | 0.089 | 6.4 | 18.85 | 7.12 | 0.25 | 4.93 | 1.849 | 10.4 | 18.62 | 7.08 | 0.253 | 3.13 | 3.752 | 81.1 |
| HN38 | 3/3/2011 | 19.62 | 7.02 | 0.298 | 4.99 | 0.092 | -11.5 | 19.12 | 7 | 0.297 | 3.91 | 1.245 | -12.2 | 18.19 | 6.9 | 0.358 | 1.15 | 2.464 | -9.1 |
| HN39 | 3/3/2011 | 18.17 | 7.02 | 0.307 | 4.55 | 0.087 | -21.1 | 17.44 | 7.01 | 0.307 | 4.52 | 0.74 | -20.6 | 12.58 | 6.99 | 0.305 | 0.57 | 1.785 | -13.6 |
| HN40 | 3/3/2011 | 19.94 | 7.32 | 0.275 | 7.07 | 0.102 | 3.1 | 19.89 | 7.26 | 0.274 | 6.68 | 0.668 | 3.8 | 18.72 | 7.25 | 0.25 | 5.65 | 1.299 | 8.1 |
| HN41 | 3/3/2011 | 19.11 | 7.25 | 0.232 | 5.86 | 0.099 | -1.6 | 18.14 | 7.25 | 0.231 | 5.29 | 1.575 | 2.4 | 18.09 | 7.29 | 0.23 | 5.34 | 2.994 | 2.7 |
| HN42 | 3/3/2011 | 19.25 | 7.28 | 0.228 | 6.08 | 0.086 | -0.7 | | | | | | | 18.99 | 7.34 | 0.227 | 6.04 | 0.833 | 0.2 |
| HN43 | 3/3/2011 | 19.28 | 7.47 | 0.224 | 7.39 | 0.078 | -11.1 | 19.05 | 7.46 | 0.223 | 7.39 | 1.425 | -12.5 | 18.36 | 7.46 | 0.221 | 7.1 | 2.908 | 32.3 |
| HN44 | 3/3/2011 | 21.91 | 7.24 | 0.207 | 7.23 | 0.075 | -11.2 | 19.38 | 7.22 | 0.206 | 6.22 | 1.062 | -7.3 | 18.53 | 7.25 | 0.206 | 3.33 | 2.223 | 2.1 |
| BC109 | 3/15/2011 | 14.23 | 7.51 | 0.447 | 4.97 | 0.227 | 9.0 | 13.83 | 7.57 | 0.448 | 4.75 | 0.813 | 9.0 | 13.69 | 7.63 | 0.448 | 4.67 | 1.624 | 9.0 |
| BC27 | 3/15/2011 | 14.57 | 7.34 | 0.447 | 6.88 | 0.192 | 9.0 | 13.91 | 7.41 | 0.437 | 7.58 | 1.057 | 9.0 | 13.78 | 7.41 | 0.435 | 7.88 | 2.054 | 9.0 |
| BC31 | 3/15/2011 | 13.59 | 7.29 | 0.434 | 5.12 | 0.270 | 9.0 | 13.51 | 7.29 | 0.433 | 5.13 | 0.797 | 9.0 | 13.53 | 7.30 | 0.433 | 5.07 | 1.524 | 9.0 |
| BC39 | 3/15/2011 | 12.26 | 7.52 | 0.389 | 9.67 | 0.391 | 9.0 | 11.98 | 7.52 | 0.389 | 9.70 | 0.746 | 9.0 | 11.96 | 7.50 | 0.390 | 9.19 | 1.586 | 9.0 |
| BC40 | 3/15/2011 | 12.78 | 7.51 | 0.386 | 9.59 | 0.110 | 9.0 | 11.75 | 7.51 | 0.387 | 9.63 | 0.766 | 9.0 | 11.63 | 7.50 | 0.386 | 9.54 | 1.521 | 9.0 |
| BC41 | 3/15/2011 | 14.06 | 7.45 | 0.411 | 8.54 | 0.272 | 9.0 | 13.03 | 7.48 | 0.402 | 8.95 | 0.697 | 9.0 | 12.05 | 7.50 | 0.392 | 9.09 | 1.637 | 9.0 |
| BC42 | 3/15/2011 | 16.07 | 7.53 | 0.460 | 12.10 | 0.162 | 9.0 | 11.41 | 7.53 | 0.403 | 9.56 | 1.830 | 9.0 | 11.03 | 7.49 | 0.408 | 9.11 | 3.674 | 9.0 |
| BC51 | 3/15/2011 | 11.61 | 7.70 | 0.379 | 10.84 | 0.148 | 9.0 | | | | | | | 11.55 | 7.70 | 0.379 | 10.76 | 0.667 | 9.0 |
| BC52 | 3/15/2011 | 13.80 | 7.56 | 0.406 | 8.52 | 0.218 | | | | | | | | 11.07 | 7.60 | 0.391 | 8.59 | 1.118 | |
| BC53 | 3/15/2011 | 12.25 | 7.56 | 0.393 | 9.89 | 0.188 | 9.0 | | | | | | | 11.30 | 7.54 | 0.392 | 9.16 | 1.151 | 9.0 |
| BC80 | 3/15/2011 | 17.52 | 7.54 | 0.454 | 10.04 | 0.123 | 9.0 | 15.60 | 7.53 | 0.454 | 9.32 | 0.769 | 9.0 | 12.65 | 7.53 | 0.445 | 5.60 | 1.520 | 9.0 |
| BC89 | 3/15/2011 | 14.41 | 7.67 | 0.420 | 11.14 | 0.163 | 609.6 | | | | | | | 10.93 | 7.61 | 0.392 | 8.75 | 1.206 | |
| BC1 | 3/22/2011 | 12.88 | 7.65 | 0.375 | 9.74 | | 67.8 | 12.82 | 7.64 | 0.374 | 9.76 | | 69 | 12.78 | 7.64 | 0.374 | 9.83 | | 95.5 |
| BC11 | 3/22/2011 | 18.5 | 7.54 | 0.386 | 4.36 | | 11.3 | 17.25 | 7.59 | 0.389 | 3.15 | | 9.9 | 16.95 | 7.67 | 0.386 | 3.38 | | 31.7 |
| BC15 | 3/22/2011 | 17.03 | 7.44 | 0.416 | 8.01 | | 12.7 | 16.86 | 7.43 | 0.414 | 7.76 | | 11.6 | 16.75 | 7.47 | 0.413 | 7.64 | | 15.3 |
| BC3 | 3/22/2011 | 18.27 | 7.51 | 0.404 | 3.22 | | 5.6 | 18.17 | 7.53 | 0.403 | 3.23 | | 6.2 | 18.06 | 7.58 | 0.404 | 3.21 | | 5.5 |
| BC4 | 3/22/2011 | 18.77 | 7.48 | 0.4 | 4.05 | | 7.6 | 18.58 | 7.5 | 0.398 | 4 | | 8.1 | 17.86 | 7.57 | 0.394 | 3.53 | | 10.2 |
| BC6 | 3/22/2011 | 18.12 | 7.51 | 0.397 | 5.83 | | 12.9 | 17.69 | 7.56 | 0.396 | 5.54 | | 11.8 | 17.31 | 7.61 | 0.396 | 5.16 | | 52.4 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BC62 | 3/22/2011 | 21.43 | 7.33 | 0.509 | 5.49 | | 3.2 | 19.74 | 7.37 | 0.468 | 6.68 | | 3.3 | 19.36 | 7.32 | 0.52 | 1.62 | | 6.2 |
| BC64 | 3/22/2011 | 18 | 7.55 | 0.409 | 8.81 | | 15.8 | 12.84 | 7.51 | 0.374 | 8.97 | | 38.9 | 12.17 | 7.5 | 0.373 | 8.55 | | 41 |
| BC65 | 3/22/2011 | 19.52 | 7.44 | 0.457 | 3.95 | | 2.5 | 17.39 | 7.51 | 0.424 | 7.82 | | 8.9 | 17.02 | 7.58 | 0.415 | 7.38 | | 10.7 |
| BC66 | 3/22/2011 | 17.85 | 7.37 | 0.392 | 6.5 | | 13.3 | 17.31 | 7.38 | 0.392 | 6.17 | | 13.8 | 16.68 | 7.39 | 0.391 | 5.21 | | 16.7 |
| BC67 | 3/22/2011 | 18.11 | 7.33 | 0.409 | 4.9 | | 9.6 | 18.05 | 7.35 | 0.408 | 4.83 | | 10.1 | 16.85 | 7.38 | 0.398 | 4.38 | | 24.6 |
| BC68 | 3/22/2011 | 18.42 | 7.35 | 0.411 | 6.54 | | 13.9 | 17.98 | 7.37 | 0.409 | 6.05 | | 15.6 | 17.77 | 7.42 | 0.409 | 5.42 | | 39 |
| BC69 | 3/22/2011 | 18.59 | 7.39 | 0.413 | 5.08 | | 8.3 | 18.45 | 7.43 | 0.412 | 5.21 | | 9.8 | 17.97 | 7.5 | 0.404 | 5.49 | | 226 |
| BC70 | 3/22/2011 | 19.02 | 7.36 | 0.409 | 3.09 | | 3.5 | 18.93 | 7.37 | 0.41 | 3.07 | | 3.5 | 18.52 | 7.42 | 0.414 | 2.86 | | 3.8 |
| BC72 | 3/22/2011 | 17.34 | 7.8 | 0.41 | 4.84 | | 11.5 | 16.28 | 7.88 | 0.408 | 5.76 | | 19.2 | 15.05 | 7.9 | 0.394 | 7.15 | | 30.2 |
| BC75 | 3/22/2011 | 12.36 | 8.35 | 0.374 | 10.07 | | 81.2 | | | | | | | | | | | | |
| BC8 | 3/22/2011 | 18.72 | 7.51 | 0.399 | 6.94 | | 9.5 | 17.07 | 7.55 | 0.393 | 4.58 | | 13 | 14.93 | 7.67 | 0.386 | 6.97 | | 41.5 |
| BC85 | 3/22/2011 | 16.8 | 7.69 | 0.375 | 4.43 | | 18.1 | 16.07 | 7.74 | 0.374 | 4.28 | | 19.2 | 15.84 | 7.79 | 0.372 | 4.52 | | 20.2 |
| BC86 | 3/22/2011 | 18.59 | 7.62 | 0.395 | 8.77 | | 11.4 | 18.02 | 7.64 | 0.396 | 7.01 | | 10.2 | 17.04 | 7.7 | 0.401 | 4.33 | | 15.4 |
| HN31 | 3/22/2011 | 20.46 | 9.4 | 0.664 | 9.6 | 0.208 | 7.6 | | | | | | | | | | | | |
| HN32 | 3/22/2011 | 21.53 | 8.5 | 0.612 | 5.34 | 0.118 | 1.1 | | | | | | | | | | | | |
| HN33 | 3/22/2011 | 16.23 | 10.22 | 0.674 | 13.64 | 0.231 | 25.9 | | | | | | | | | | | | |
| HN35 | 3/22/2011 | 21.17 | 9.07 | 0.634 | 7.79 | 0.087 | 1.2 | | | | | | | | | | | | |
| HN37 | 3/22/2011 | 19.1 | 9.09 | 0.685 | 9.91 | 0.037 | 11.8 | | | | | | | | | | | | |
| HN38 | 3/22/2011 | 20.83 | 8.59 | 0.648 | 7.77 | 0.024 | 1.8 | | | | | | | | | | | | |
| HN40 | 3/22/2011 | 17.7 | 10.97 | 0.677 | 14.92 | 0.205 | 19.3 | | | | | | | | | | | | |
| HN41 | 3/22/2011 | 12.52 | 10.79 | 0.67 | 11.23 | 0.331 | 46 | | | | | | | | | | | | |
| HN42 | 3/22/2011 | 17.36 | 9.44 | 0.677 | 10.86 | 0.239 | 22.3 | | | | | | | | | | | | |
| HN43 | 3/22/2011 | 13.89 | 9.98 | 0.663 | 11.36 | 0.182 | 36.6 | | | | | | | | | | | | |
| HN44 | 3/22/2011 | 20.55 | 9.33 | 0.581 | 8.19 | 0.248 | 2.6 | | | | | | | | | | | | |
| HN10 | 3/23/2011 | 24.13 | 8.43 | 0.459 | 6.45 | 0.12 | 10.5 | 23.59 | 8.36 | 0.468 | 3.59 | 0.52 | 8.6 | 23.22 | 8.41 | 0.476 | 2 | 1.03 | 46.5 |
| HN11 | 3/23/2011 | 22.94 | 8.78 | 0.577 | 6.63 | 0.138 | 27 | 22.49 | 8.75 | 0.576 | 6.03 | 1.077 | 28.4 | 22.38 | 8.78 | 0.574 | 5.7 | 2.26 | 45 |
| HN12 | 3/23/2011 | 23.87 | 8.82 | 0.555 | 6.72 | 0.143 | 22.3 | 23.04 | 8.83 | 0.556 | 5.76 | 1.99 | 23.8 | 20.02 | 8.9 | 0.552 | 1.16 | 3.649 | 38.4 |
| HN13 | 3/23/2011 | 22.7 | 8.65 | 0.551 | 5.28 | 0.146 | 25 | 21.85 | 8.59 | 0.553 | 4.02 | 1.17 | 27.2 | 21.01 | 8.63 | 0.556 | 2.26 | 2.437 | 49.1 |
| HN14 | 3/23/2011 | 22.63 | 8.64 | 0.541 | 5.73 | 0.13 | 26.1 | | | | | | | 22.1 | 8.63 | 0.542 | 4 | 0.658 | 89.1 |
| HN15 | 3/23/2011 | 22.12 | 8.94 | 0.361 | 5.83 | 0.238 | 44.2 | 21.5 | 8.99 | 0.358 | 5.28 | 1.13 | 46 | 19.83 | 9.26 | 0.345 | 3.69 | 2.15 | 57.3 |
| HN16 | 3/23/2011 | 22.86 | 8.8 | 0.546 | 3.53 | 0.107 | 19.5 | 21.98 | 8.88 | 0.484 | 3.88 | 1.732 | 30.3 | 21.32 | 9.02 | 0.396 | 4.12 | 4.522 | 44.8 |
| HN5 | 3/23/2011 | 21.61 | 9.48 | 0.355 | 7.07 | 0.133 | 42.7 | 19.67 | 9.76 | 0.433 | 7.44 | 2.558 | 49.4 | 19.5 | 9.82 | 0.44 | 7.73 | 5.149 | 92.4 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HN7 | 3/23/2011 | 18.61 | 8.41 | 0.751 | 0.19 | 0.139 | 0.8 | 18.24 | 8.46 | 0.754 | 0.19 | 0.603 | 1.6 | 17.13 | 8.53 | 0.755 | 0.32 | 1.298 | 8.8 |
| HN8 | 3/23/2011 | 22.81 | 8.55 | 0.613 | 5.41 | 0.118 | 2.1 | 16.79 | 8.76 | 0.661 | 0.17 | 1.572 | 2 | 11.05 | 9.13 | 0.657 | 0.28 | 3.008 | 5.1 |
| HN9 | 3/23/2011 | 22.57 | 8.77 | 0.532 | 5.16 | 0.124 | 3.3 | 19.19 | 8.82 | 0.533 | 0.18 | 1.13 | 3.8 | 15.24 | 9.13 | 0.527 | 0.25 | 2.161 | 7.9 |
| HN1 | 3/24/2011 | 22.18 | 8.2 | 0.329 | 3.61 | 0.11 | 24.1 | 21.8 | 8.19 | 0.331 | 3.32 | 0.56 | 22.7 | 21.7 | 8.16 | 0.332 | 3.64 | 1.131 | 22 |
| HN18 | 3/24/2011 | 22.18 | 8.22 | 0.399 | 2.05 | 0.11 | 16.5 | 20.55 | 8.28 | 0.428 | 0.65 | 1.048 | 19.7 | 17.43 | 8.42 | 0.547 | 2.14 | 2.103 | 124.3 |
| HN19 | 3/24/2011 | 21.89 | 8.2 | 0.331 | 3.14 | 0.117 | 22.1 | 19.6 | 8.25 | 0.358 | 0.45 | 1.251 | 27 | 18.83 | 8.33 | 0.342 | 1.25 | 2.129 | 33.2 |
| HN20 | 3/24/2011 | 21.51 | 8.28 | 0.332 | 1.31 | 0.142 | 25.9 | 18.9 | 8.36 | 0.352 | 0.36 | 2.058 | 32 | 18.16 | 8.47 | 0.357 | 1.21 | 4.022 | 38.2 |
| HN21 | 3/24/2011 | 21.63 | 8.3 | 0.337 | 2.28 | 0.193 | 18.7 | 19.58 | 8.47 | 0.352 | 0.41 | 1.141 | 39.8 | 18.56 | 8.51 | 0.38 | 0.82 | 2.255 | 40.6 |
| HN22 | 3/24/2011 | 21.9 | 8.37 | 0.35 | 3.1 | 0.246 | 19.9 | 20.76 | 8.39 | 0.358 | 0.55 | 0.883 | 27.8 | 18.3 | 8.47 | 0.403 | 0.68 | 2.563 | 39.8 |
| HN25 | 3/24/2011 | 21.63 | 8.42 | 0.551 | 3.79 | 0.116 | 2.8 | 20.08 | 8.42 | 0.582 | 1.39 | 1.875 | 6.8 | 17.06 | 8.71 | 0.539 | 1.25 | 3.649 | 16.9 |
| HN26 | 3/24/2011 | 22.04 | 8.37 | 0.65 | 6.45 | 0.116 | 4.3 | 21.29 | 8.36 | 0.655 | 5.71 | 2.13 | 5.4 | 15.04 | 8.57 | 0.691 | 3.99 | 4.161 | 13.8 |
| HN27 | 3/24/2011 | 20.92 | 8.78 | 0.672 | 9.48 | 0.094 | 8.4 | 19.03 | 8.76 | 0.67 | 6.98 | 2.602 | 13.7 | 14.35 | 8.89 | 0.666 | 5.66 | 5.21 | 23.6 |
| HN28 | 3/24/2011 | 21.83 | 8.65 | 0.432 | 2.45 | 0.149 | 1.5 | 18.92 | 8.72 | 0.468 | 0.2 | 1.574 | 19.8 | 17.21 | 8.86 | 0.517 | 0.5 | 3.093 | 36 |
| HN29 | 3/24/2011 | 21.98 | 8.52 | 0.423 | 2.56 | 0.071 | 2.3 | 17.85 | 8.73 | 0.485 | 0.51 | 1.355 | 3.2 | 16.35 | 8.84 | 0.418 | 1.35 | 3.628 | 9.2 |
| HN3 | 3/24/2011 | 22.01 | 8.22 | 0.399 | 0.79 | 0.103 | 17.5 | 19.42 | 8.47 | 0.383 | 0.41 | 1.663 | 25.2 | 18.33 | 8.46 | 0.652 | 1.2 | 2.33 | 9.1 |
| HN30 | 3/24/2011 | 20.7 | 8.96 | 0.441 | 1.76 | 0.14 | 2.1 | 18.44 | 9.17 | 0.524 | 0.27 | 1.534 | 4.6 | 17.08 | 9.1 | 0.532 | 1.67 | 2.98 | 14.7 |
| BC108 | 3/29/2011 | 14.44 | 9.25 | 0.644 | 9.91 | 0.069 | 57.1 | | | | | | | | | | | | |
| BC109 | 3/29/2011 | 16.51 | 8.89 | 0.663 | 5.11 | 0.044 | 17.5 | 16.17 | 8.94 | 0.658 | 5.48 | 0.943 | 19.1 | 15.85 | 8.96 | 0.654 | 5.66 | 1.9 | 21.5 |
| BC27 | 3/29/2011 | 17.58 | 8.84 | 0.682 | 5.52 | 0.009 | 12.4 | 17.34 | 8.86 | 0.677 | 5.57 | 1.26 | 13 | 17.2 | 8.98 | 0.669 | 5.96 | 2.448 | 16 |
| BC32 | 3/29/2011 | 16.62 | 8.72 | 0.669 | 8.14 | 0.044 | 23.7 | 16.2 | 8.77 | 0.667 | 8.12 | 0.648 | 25.3 | 16.17 | 8.79 | 0.664 | 8.05 | 1.323 | 24.8 |
| BC39 | 3/29/2011 | 15.01 | 9.12 | 0.656 | 9.21 | 0.123 | 34.2 | 14.85 | 9.14 | 0.654 | 9.43 | 0.802 | 33.2 | 14.82 | 9.1 | 0.649 | 9.34 | 1.655 | 34.9 |
| BC40 | 3/29/2011 | 14.75 | 9.15 | 0.656 | 9.63 | 0.044 | 36.5 | 14.63 | 9.16 | 0.654 | 9.55 | 0.907 | 36.7 | 14.58 | 9.15 | 0.648 | 9.53 | 1.747 | 104 |
| BC41 | 3/29/2011 | 15.65 | 9.06 | 0.661 | 8.88 | 0.035 | 31.3 | 15.6 | 9.07 | 0.66 | 8.88 | 0.764 | 27.5 | 15.45 | 9.06 | 0.657 | 8.92 | 1.536 | 29.2 |
| BC42 | 3/29/2011 | 17.09 | 8.87 | 0.68 | 7.26 | 0.038 | 13.5 | 16.69 | 8.89 | 0.679 | 5.83 | 1.917 | 14.2 | 16.02 | 9.16 | 0.687 | 4.3 | 3.866 | 17.7 |
| BC47 | 3/29/2011 | 14.88 | 9.09 | 0.657 | 8.52 | 0.103 | 40.2 | 14.37 | 9.15 | 0.652 | 9.3 | 0.803 | 53.4 | 14.26 | 9.18 | 0.645 | 9.42 | 1.612 | 37.3 |
| BC48 | 3/29/2011 | 14.16 | 9.13 | 0.654 | 10.01 | 0.019 | 39.5 | 14.09 | 9.15 | 0.654 | 10.01 | 0.809 | 39.5 | 14.08 | 9.2 | 0.647 | 9.91 | 1.677 | 46.9 |
| BC51 | 3/29/2011 | 14.71 | 9.04 | 0.655 | 10.56 | 0.017 | 56.9 | | | | | | | 14.7 | 9.12 | 0.654 | 10.59 | 0.746 | 56.9 |
| BC52 | 3/29/2011 | 18.45 | 8.77 | 0.685 | 9.02 | 0.018 | 23.7 | 15.35 | 8.93 | 0.67 | 9.37 | 0.622 | 25.7 | 14.81 | 8.99 | 0.668 | 7.19 | 1.393 | 36.7 |
| BC53 | 3/29/2011 | 16.89 | 9.01 | 0.674 | 10.12 | 0.058 | 21.5 | 15.35 | 9.05 | 0.666 | 8.91 | 0.764 | 32.8 | 15.3 | 9.11 | 0.666 | 8.77 | 1.439 | 72.1 |
| BC80 | 3/29/2011 | 18.68 | 8.73 | 0.698 | 8.47 | 0.059 | 12.2 | 15.76 | 8.8 | 0.675 | 7.45 | 0.93 | 23.7 | 15.17 | 8.87 | 0.684 | 2.57 | 1.887 | 42.1 |
| BC89 | 3/29/2011 | 18.46 | 8.81 | 0.684 | 11.59 | 0.08 | 7.4 | 14.9 | 8.84 | 0.671 | 8.46 | 0.752 | 28.3 | 14.65 | 8.85 | 0.676 | 5.57 | 1.423 | 52.6 |
| BC90 | 3/29/2011 | 14.5 | 8.96 | 0.655 | 10.5 | 0.034 | 66.8 | 14.46 | 8.96 | 0.655 | 10.54 | 0.777 | 69.5 | 14.46 | 8.96 | 0.65 | 10.61 | 1.583 | 72.5 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BC1 | 3/30/2011 | 17.46 | 8.93 | 0.675 | 6.78 | -0.001 | 16.8 | 14.79 | 9.27 | 0.643 | 9.78 | 1.707 | 38.5 | 14.75 | 9.28 | 0.64 | 9.83 | 3.485 | 43.2 |
| BC11 | 3/30/2011 | 17.74 | 8.68 | 0.646 | 3.71 | 0.101 | 11.7 | 17.78 | 8.72 | 0.646 | 3.54 | 1.332 | 11.3 | 17.69 | 8.77 | 0.647 | 3.66 | 2.601 | 14.5 |
| BC15 | 3/30/2011 | 17 | 8.86 | 0.649 | 5.82 | 0.046 | 12.7 | 16.98 | 8.84 | 0.649 | 5.78 | 0.87 | 13.1 | 16.98 | 8.85 | 0.65 | 5.72 | 1.666 | 18.6 |
| BC2 | 3/30/2011 | 18.09 | 8.7 | 0.657 | 2.13 | 0.061 | 6.3 | 18.09 | 8.73 | 0.657 | 2.11 | 0.86 | 6.3 | 18.09 | 8.73 | 0.658 | 2.07 | 1.747 | 8.1 |
| BC3 | 3/30/2011 | 17.88 | 8.66 | 0.654 | 2.12 | 0.058 | 11.7 | 17.87 | 8.68 | 0.654 | 2.17 | 0.791 | 10.6 | 17.85 | 8.73 | 0.655 | 2.18 | 1.71 | 11.9 |
| BC4 | 3/30/2011 | 18.45 | 8.59 | 0.655 | 2.88 | 0.006 | 6.9 | 18.44 | 8.63 | 0.656 | 2.8 | 1.083 | 7 | 18.42 | 8.64 | 0.657 | 2.68 | 2.128 | 7.4 |
| BC6 | 3/30/2011 | 17.85 | 8.58 | 0.658 | 4.47 | 0.028 | 10.4 | 17.84 | 8.57 | 0.658 | 4.45 | 0.837 | 11 | 17.84 | 8.59 | 0.659 | 4.32 | 1.789 | 13.9 |
| BC63 | 3/30/2011 | 18.26 | 8.84 | 0.656 | 7.52 | 0.016 | 8.1 | 17.86 | 8.83 | 0.658 | 7.15 | 0.902 | 10.9 | 17.22 | 8.83 | 0.663 | 5.76 | 1.688 | 17.7 |
| BC64 | 3/30/2011 | 16.16 | 9.05 | 0.644 | 9.12 | 0.046 | 18.3 | 14.86 | 9.1 | 0.648 | 8.44 | 1.378 | 24.6 | 14.44 | 9.13 | 0.644 | 8.46 | 2.774 | 46.9 |
| BC65 | 3/30/2011 | 17.24 | 8.81 | 0.658 | 6.02 | 0.064 | 10.9 | 17.26 | 8.84 | 0.658 | 6.42 | 1.778 | 12 | 17.25 | 8.85 | 0.657 | 6.45 | 3.814 | 13.1 |
| BC66 | 3/30/2011 | 17.64 | 8.6 | 0.661 | 4.12 | 0.027 | 8.8 | 17.63 | 8.61 | 0.66 | 3.98 | 0.917 | 9.8 | 17.61 | 8.61 | 0.663 | 3.93 | 1.607 | 13.9 |
| BC67 | 3/30/2011 | 18.42 | 8.57 | 0.669 | 2.81 | 0.039 | 4.3 | 18.43 | 8.58 | 0.669 | 2.78 | 1.043 | 4.6 | 18.43 | 8.6 | 0.669 | 2.77 | 1.914 | 8.4 |
| BC68 | 3/30/2011 | 18.38 | 8.61 | 0.677 | 3.41 | 0.038 | 5.3 | 18.37 | 8.65 | 0.678 | 3.35 | 1.329 | 5.3 | 18.36 | 8.67 | 0.679 | 3.22 | 2.374 | 28.9 |
| BC69 | 3/30/2011 | 18.48 | 8.68 | 0.673 | 4.01 | 0.024 | 6.9 | 18.48 | 8.7 | 0.673 | 3.98 | 1.091 | 7.6 | 18.47 | 8.7 | 0.674 | 3.94 | 1.918 | 7.9 |
| BC70 | 3/30/2011 | 19 | 8.71 | 0.667 | 1.75 | 0.039 | 9.3 | 19 | 8.77 | 0.668 | 1.73 | 1.105 | 3.9 | 18.96 | 8.85 | 0.668 |  |  |  |
| BC72 | 3/30/2011 | 17.9 | 9.08 | 0.666 | 4.41 | 0.032 | 30.5 | 17.89 | 9.11 | 0.664 | 4.58 | 0.923 | 14.3 | 17.88 | 9.1 | 0.665 | 1.59 | 2.048 | 6.4 |
| BC75 | 3/30/2011 | 14.61 | 9.79 | 0.65 | 9.98 | 0.011 | 62 |  |  |  |  |  |  |  |  |  | 4.63 | 1.814 | 14.3 |
| BC8 | 3/30/2011 | 18.25 | 8.61 | 0.661 | 5.16 | 0.055 | 9.1 | 18.19 | 8.68 | 0.663 | 4.94 | 1.39 | 9.8 | 15.42 | 9.02 | 0.648 | 8.68 | 2.996 | 69.6 |
| BC85 | 3/30/2011 | 17.2 | 8.66 | 0.648 | 4.57 | 0.026 | 14.2 | 17.11 | 8.71 | 0.649 | 4.47 | 1.132 | 14.6 | 17.16 | 8.79 | 0.648 | 4.62 | 1.804 | 15.9 |
| BC86 | 3/30/2011 | 18.22 | 8.59 | 0.66 | 4.96 | 0.024 | 8 | 18.22 | 8.6 | 0.661 | 5 | 1.078 | 8.2 | 17.93 | 8.63 | 0.663 | 4.24 | 2.098 | 8.7 |
| BC108 | 4/12/2011 | 16.35 | 9.37 | 0.706 | 9.09 | 0.106 | 34.4 | 16.30 | 9.41 | 0.707 | 9.10 | 4.544 | 43.3 | 16.29 | 9.43 | 0.707 | 9.14 | 8.943 | 61.3 |
| BC109 | 4/12/2011 | 17.25 | 9.18 | 0.708 | 5.41 | 0.092 | 12.4 | 17.20 | 9.13 | 0.709 | 5.44 | 1.073 | 10.4 | 17.19 | 9.12 | 0.710 | 5.51 | 2.058 | 13.6 |
| BC27 | 4/12/2011 | 18.68 | 8.97 | 0.701 | 3.00 | 0.119 | 6.2 | 18.55 | 8.99 | 0.700 | 3.16 | 1.162 | 7.4 | 18.44 | 9.02 | 0.702 | 3.43 | 2.313 | 25.3 |
| BC31 | 4/12/2011 | 16.92 | 9.12 | 0.710 | 5.70 | 0.136 | 12.5 | 16.86 | 9.12 | 0.710 | 5.60 | 0.950 | 13.3 | 16.83 | 9.16 | 0.707 | 5.57 | 1.814 | 35.7 |
| BC32 | 4/12/2011 | 17.88 | 9.01 | 0.711 | 7.59 | 0.117 | 11.1 | 17.38 | 9.09 | 0.711 | 7.39 | 0.678 | 12.3 | 17.36 | 9.17 | 0.710 | 7.39 | 1.419 | 12.2 |
| BC39 | 4/12/2011 | 16.65 | 9.51 | 0.708 | 8.83 | 0.118 | 18.3 | 16.48 | 9.52 | 0.708 | 8.82 | 0.694 | 17.6 | 16.32 | 9.55 | 0.708 | 8.47 | 1.255 | 23.4 |
| BC40 | 4/12/2011 | 16.43 | 9.52 | 0.709 | 9.07 | 0.073 | 25.5 | 16.31 | 9.51 | 0.709 | 9.06 | 0.836 | 23.2 | 16.26 | 9.54 | 0.708 | 9.05 | 1.719 | 30.8 |
| BC41 | 4/12/2011 | 17.42 | 9.38 | 0.710 | 7.42 | 0.101 | 13.8 | 17.38 | 9.39 | 0.710 | 7.45 | 0.804 | 15.2 | 17.09 | 9.44 | 0.708 | 7.53 | 1.572 | 17.3 |
| BC42 | 4/12/2011 | 18.96 | 9.07 | 0.699 | 4.26 | 0.109 | 7.4 | 18.25 | 9.21 | 0.702 | 4.58 | 1.821 | 9.9 | 17.24 | 9.48 | 0.704 | 4.80 | 3.757 | 67.7 |
| BC48 | 4/12/2011 | 16.52 | 9.59 | 0.708 | 9.68 | 0.096 | 23.8 | 16.17 | 9.60 | 0.707 | 9.41 | 0.828 | 25.0 | 16.18 | 9.60 | 0.705 | 9.36 | 1.610 | 31.7 |
| BC51 | 4/12/2011 | 16.86 | 9.47 | 0.708 | 9.96 | 0.088 | 38.9 |  |  |  |  |  |  | 16.84 | 9.56 | 0.700 | 10.04 | 0.755 | 41.4 |
| BC52 | 4/12/2011 | 19.26 | 8.97 | 0.690 | 6.93 | 0.093 | 4.4 | 16.89 | 9.10 | 0.710 | 6.37 | 0.836 | 14.8 | 16.39 | 9.14 | 0.714 | 3.57 | 1.492 | 24.6 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BC53 | 4/12/2011 | 17.38 | 9.29 | 0.701 | 7.89 | 0.128 | 19.1 | 17.36 | 9.30 | 0.701 | 7.87 | 0.711 | 19.8 | 17.32 | 9.31 | 0.698 | 7.97 | 1.427 | 21.1 |
| BC80 | 4/12/2011 | 18.59 | 9.09 | 0.713 | 6.81 | 0.117 | 10.1 | 18.40 | 9.18 | 0.714 | 6.65 | 1.090 | 10.0 | 16.64 | 9.28 | 0.718 | 1.06 | 2.200 | 20.2 |
| BC89 | 4/12/2011 | 19.65 | 9.12 | 0.694 | 9.99 | 0.109 | 5.3 | 17.28 | 9.09 | 0.712 | 8.40 | 0.700 | 14.1 | 15.96 | 9.10 | 0.722 | 1.25 | 1.586 | 18.7 |
| BC90 | 4/12/2011 | 17.31 | 9.39 | 0.714 | 9.94 | 0.105 | 30.6 | 16.78 | 9.44 | 0.712 | 10.00 | 0.744 | 40.4 | 16.67 | 9.50 | 0.709 | 10.05 | 1.499 | 49.7 |
| BC1 | 4/13/2011 | 17.3 | 9.47 | 0.707 | 8.25 | 0.106 | 29.9 | 16.92 | 9.53 | 0.707 | 8.44 | 1.578 | 35.2 | 16.89 | 9.33 | 0.705 | 8.44 | 3.145 | 57.5 |
| BC11 | 4/13/2011 | 20.23 | 8.91 | 0.713 | 2.73 | 0.073 | 5.5 | 19.56 | 8.81 | 0.714 | 2.43 | 1.242 | 5.7 | 19.25 | 8.88 | 0.712 | 2.41 | 2.563 | 10.7 |
| BC15 | 4/13/2011 | 18.54 | 9.03 | 0.701 | 2.92 | 0.122 | 4.6 | 18.44 | 9.05 | 0.700 | 2.93 | 0.762 | 4.6 | 18.43 | 9.10 | 0.699 | 2.87 | 1.455 | 5.3 |
| BC2 | 4/13/2011 | 19.8 | 9.00 | 0.684 | 1.18 | 0.084 | 3.0 | 19.78 | 9.04 | 0.684 | 1.15 | 0.823 | 3.8 | 19.76 | 8.94 | 0.683 | 1.15 | 1.627 | 12.3 |
| BC3 | 4/13/2011 | 19.97 | 8.90 | 0.706 | 1.39 | 0.189 | 4.4 | 19.81 | 8.75 | 0.706 | 1.37 | 0.865 | 4.5 | 19.77 | 8.82 | 0.704 | 1.35 | 1.719 | 8.0 |
| BC4 | 4/13/2011 | 19.83 | 8.87 | 0.688 | 1.5 | 0.158 | 3.5 | 19.71 | 8.91 | 0.689 | 1.48 | 0.917 | 3.4 | 19.61 | 8.97 | 0.689 | 1.39 | 1.841 | 3.4 |
| BC6 | 4/13/2011 | 19.74 | 8.93 | 0.699 | 2.96 | 0.113 | 4.8 | 19.34 | 8.76 | 0.698 | 2.8 | 0.963 | 4.8 | 19.17 | 8.84 | 0.698 | 2.73 | 1.888 | 5.4 |
| BC63 | 4/13/2011 | 18.79 | 9.13 | 0.691 | 5.65 | 0.143 | 2.9 | 18.47 | 9.07 | 0.691 | 5.45 | 1.071 | 3.5 | 18.33 | 9.13 | 0.688 | 5.18 | 1.943 | 7.0 |
| BC64 | 4/13/2011 | 18.97 | 9.15 | 0.694 | 4.90 | 0.162 | 3.3 | 18.21 | 9.18 | 0.698 | 4.13 | 1.312 | 5.2 | 16.92 | 9.48 | 0.710 | 4.73 | 2.702 | 11.5 |
| BC65 | 4/13/2011 | 18.53 | 9.16 | 0.700 | 3.55 | 0.126 | 4.6 | 18.32 | 9.25 | 0.700 | 4.68 | 1.891 | 4.9 | 18.27 | 9.30 | 0.698 | 4.69 | 3.733 | 4.9 |
| BC66 | 4/13/2011 | 19.43 | 8.83 | 0.686 | 1.65 | 0.139 | 2.0 | 19.17 | 8.89 | 0.682 | 1.02 | 0.702 | 2.1 | 19.12 | 8.93 | 0.683 | 0.99 | 1.538 | 5.0 |
| BC67 | 4/13/2011 | 19.75 | 8.92 | 0.692 | 1.60 | 0.141 | 2.8 | 19.64 | 8.95 | 0.691 | 1.48 | 0.834 | 2.8 | 19.39 | 9.00 | 0.693 | 1.50 | 1.962 | 4.1 |
| BC68 | 4/13/2011 | 19.66 | 9.00 | 0.689 | 1.97 | 0.134 | 3.0 | 19.63 | 9.03 | 0.687 | 1.99 | 1.257 | 3.2 | 19.60 | 9.06 | 0.690 | 1.96 | 2.434 | 8.2 |
| BC69 | 4/13/2011 | 20.05 | 9.07 | 0.692 | 2.92 | 0.090 | 4.2 | 19.81 | 9.11 | 0.693 | 2.74 | 0.945 | 5.1 | 19.75 | 9.16 | 0.694 | 2.75 | 2.011 | 12.8 |
| BC70 | 4/13/2011 | 20.16 | 9.11 | 0.694 | 1.37 | 0.104 | 3.0 | 20.08 | 9.14 | 0.694 | 1.11 | 0.856 | 2.9 | 20.05 | 9.18 | 0.695 | 1.03 | 1.724 | 2.9 |
| BC72 | 4/13/2011 | 19.19 | 9.34 | 0.691 | 3.28 | 0.216 | 10.5 | 19.15 | 9.36 | 0.691 | 3.29 | 0.943 | 10.6 | 19.13 | 9.40 | 0.693 | 3.31 | 1.818 | 17.9 |
| BC75 | 4/13/2011 | 16.62 | 9.55 | 0.708 | 8.57 | 0.297 | 47.4 | | | | | | | | | | | | |
| BC8 | 4/13/2011 | 20.72 | 8.70 | 0.698 | 2.97 | 0.139 | 3.6 | 19.19 | 8.79 | 0.695 | 2.35 | 1.517 | 3.6 | 19.03 | 9.02 | 0.693 | 2.43 | 3.186 | 6.4 |
| BC85 | 4/13/2011 | 19.41 | 8.99 | 0.717 | 4 | 0.081 | 8.1 | 18.72 | 9.03 | 0.718 | 3.55 | 1.001 | 8.4 | 18.56 | 8.84 | 0.718 | 3.18 | 2.045 | 21.8 |
| BC86 | 4/13/2011 | 21.57 | 8.87 | 0.705 | 4.92 | 0.113 | 4.1 | 18.97 | 8.83 | 0.702 | 4.05 | 1.386 | 4.6 | 18.75 | 8.97 | 0.704 | 2.54 | 2.612 | 4.7 |
| BC999 | 4/13/2011 | 21.87 | 9.18 | 0.735 | 7.92 | 0.074 | 3.3 | 18.05 | 9.18 | 0.718 | 6.94 | 2.574 | 19.4 | 16.19 | 9.41 | 0.724 | 1.33 | 4.952 | 12.8 |
| HN35 | 4/21/2011 | 23.83 | 7.02 | 0.329 | 2.52 | 0.265 | | 22.57 | 6.91 | 0.334 | 0.85 | 1.526 | | 21.08 | 6.79 | 0.328 | 1.96 | 3.853 | |
| HN36 | 4/21/2011 | 24.50 | 7.09 | 0.333 | 4.51 | 0.154 | | 21.57 | 6.80 | 0.344 | 1.20 | 1.407 | | 18.68 | 6.66 | 0.406 | 1.73 | 2.690 | |
| HN37 | 4/21/2011 | 23.57 | 7.11 | 0.308 | 4.49 | 0.289 | | 22.61 | 6.99 | 0.321 | 2.16 | 2.524 | | 21.80 | 6.87 | 0.276 | 2.50 | 4.933 | |
| HN38 | 4/21/2011 | 23.63 | 6.99 | 0.329 | 1.09 | 0.327 | | 22.69 | 6.92 | 0.334 | 0.75 | 1.886 | | 21.12 | 6.95 | 0.356 | 1.31 | 3.773 | |
| HN40 | 4/21/2011 | 24.35 | 7.12 | 0.335 | 4.67 | 0.106 | | 23.65 | 6.99 | 0.331 | 2.29 | 2.149 | | 23.57 | 6.98 | 0.331 | 2.45 | 4.074 | |
| HN41 | 4/21/2011 | 23.96 | 7.09 | 0.307 | 4.00 | 0.128 | | 23.48 | 7.06 | 0.307 | 3.57 | 1.814 | | 23.47 | 7.06 | 0.308 | 3.68 | 3.715 | |
| HN43 | 4/21/2011 | 24.99 | 7.57 | 0.302 | 8.33 | 0.122 | | 22.80 | 7.10 | 0.308 | 2.37 | 2.435 | | 19.69 | 7.07 | 0.315 | 3.45 | 4.620 | |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HN44 | 4/21/2011 | 24.82 | 7.29 | 0.298 | 6.97 | 0.149 | | 24.42 | 7.22 | 0.297 | 5.95 | 1.818 | | 22.19 | 6.93 | 0.301 | 1.58 | 3.427 | |
| BC109 | 4/27/2011 | 21.78 | 5.75 | 0.401 | 2.53 | 0.114 | 3.0 | 21.73 | 5.73 | 0.400 | 2.50 | 0.846 | 3.2 | 21.70 | 5.71 | 0.398 | 2.57 | 1.712 | 3.9 |
| BC27 | 4/27/2011 | 22.34 | 5.96 | 0.405 | 1.90 | 0.111 | 2.7 | 22.31 | 6.00 | 0.404 | 1.91 | 1.097 | 3.0 | 22.15 | 6.24 | 0.404 | 2.21 | 2.140 | 12.7 |
| BC39 | 4/27/2011 | 20.58 | 6.24 | 0.399 | 6.00 | 0.091 | 13.1 | 19.86 | 6.27 | 0.402 | 5.78 | 0.587 | 14.7 | 19.42 | 6.29 | 0.399 | 3.73 | 1.316 | 16.9 |
| BC40 | 4/27/2011 | 21.12 | 6.33 | 0.404 | 7.14 | 0.061 | 15.1 | 20.62 | 6.30 | 0.405 | 6.80 | 0.748 | 17.0 | 19.81 | 6.24 | 0.405 | 5.06 | 1.498 | 55.3 |
| BC41 | 4/27/2011 | 22.09 | 6.12 | 0.404 | 4.30 | 0.101 | 5.5 | 20.85 | 6.18 | 0.403 | 4.63 | 0.807 | 11.7 | 20.21 | 6.21 | 0.400 | 4.74 | 1.506 | 38.6 |
| BC42 | 4/27/2011 | 22.61 | 6.15 | 0.410 | 4.03 | 0.095 | 4.4 | 20.08 | 6.30 | 0.404 | 6.46 | 1.655 | 15.4 | 18.63 | 6.57 | 0.411 | 3.14 | 3.269 | 25.4 |
| BC48 | 4/27/2011 | 20.77 | 6.45 | 0.404 | 7.23 | 0.103 | 24.3 | 20.47 | 6.46 | 0.403 | 7.03 | 0.568 | 26.9 | 20.17 | 6.48 | 0.402 | 6.55 | 1.225 | 21.9 |
| BC52 | 4/27/2011 | 21.52 | 6.45 | 0.397 | 6.18 | 0.090 | 11.0 | 21.07 | 6.48 | 0.397 | 6.08 | 0.720 | 13.1 | 20.39 | 6.53 | 0.397 | 5.79 | 1.200 | 27.9 |
| BC53 | 4/27/2011 | 20.96 | 6.39 | 0.400 | 5.95 | 0.080 | 13.7 | 20.59 | 6.39 | 0.400 | 5.67 | 0.659 | 16.9 | 20.32 | 6.46 | 0.400 | 4.98 | 1.150 | 34.7 |
| BC80 | 4/27/2011 | 22.77 | 6.32 | 0.402 | 4.27 | 0.117 | 3.4 | 22.68 | 6.36 | 0.401 | 4.12 | 0.885 | 3.5 | 21.92 | 6.40 | 0.399 | 2.06 | 1.708 | 17.2 |
| BC89 | 4/27/2011 | 22.27 | 6.44 | 0.396 | 7.23 | 0.102 | 8.3 | 21.03 | 6.40 | 0.397 | 5.45 | 0.455 | 13.5 | 20.05 | 6.45 | 0.398 | 4.64 | 1.062 | 14.9 |
| BC90 | 4/27/2011 | 19.89 | 6.71 | 0.401 | 8.50 | 0.066 | 44.7 | 19.87 | 6.73 | 0.400 | 8.50 | 0.577 | 48.4 | 19.87 | 6.78 | 0.398 | 8.52 | 1.040 | 100.0 |
| BC1 | 4/28/2011 | 20.21 | 7.66 | 0.387 | 7.19 | 0.176 | 55.5 | 20.16 | 7.66 | 0.387 | 7.19 | 1.028 | 62.0 | 20.13 | 7.66 | 0.387 | 7.22 | 1.954 | 70.3 |
| BC11 | 4/28/2011 | 23.02 | 7.05 | 0.403 | 0.79 | 0.159 | -0.8 | 22.70 | 7.05 | 0.403 | 0.79 | 0.795 | -1.1 | 22.43 | 7.05 | 0.403 | 0.68 | 1.627 | 6.6 |
| BC2 | 4/28/2011 | 23.53 | 7.10 | 0.405 | 0.73 | 0.161 | -0.3 | 23.31 | 7.09 | 0.404 | 0.69 | 0.855 | -1.1 | 23.27 | 7.09 | 0.405 | 0.70 | 1.792 | 16.4 |
| BC4 | 4/28/2011 | 22.96 | 7.09 | 0.404 | 0.83 | 0.160 | -1.0 | 22.96 | 7.09 | 0.404 | 0.83 | 0.843 | -0.8 | 22.87 | 7.09 | 0.404 | 0.89 | 1.759 | 7.7 |
| BC6 | 4/28/2011 | 22.72 | 7.10 | 0.402 | 1.72 | 0.160 | 1.0 | 22.60 | 7.10 | 0.402 | 1.70 | 0.823 | 1.0 | 22.39 | 7.10 | 0.402 | 1.71 | 1.722 | 2.4 |
| BC62 | 4/28/2011 | 23.77 | 7.13 | 0.390 | 1.31 | 0.162 | -0.5 | 23.14 | 7.09 | 0.391 | 0.54 | 0.839 | 10.7 | 21.35 | 7.00 | 0.430 | 0.29 | 1.883 | 11.7 |
| BC64 | 4/28/2011 | 22.18 | 7.19 | 0.398 | 2.58 | 0.173 | 4.3 | 20.07 | 7.39 | 0.398 | 5.14 | 1.268 | 16.2 | 19.82 | 7.30 | 0.400 | 4.40 | 2.725 | 23.2 |
| BC65 | 4/28/2011 | 22.15 | 7.13 | 0.390 | 1.14 | 0.162 | 6.7 | 21.88 | 7.09 | 0.392 | 1.01 | 1.415 | 0.2 | 21.81 | 7.09 | 0.392 | 1.02 | 2.933 | 1.2 |
| BC66 | 4/28/2011 | 22.11 | 7.08 | 0.395 | 0.77 | 0.172 | -0.8 | 22.09 | 7.08 | 0.395 | 0.70 | 0.805 | -1.0 | 22.08 | 7.07 | 0.395 | 0.67 | 1.619 | 16.9 |
| BC67 | 4/28/2011 | 21.96 | 7.14 | 0.396 | 2.36 | 0.167 | 1.4 | 21.96 | 7.15 | 0.397 | 2.35 | 0.870 | 1.1 | 21.97 | 7.14 | 0.397 | 2.26 | 1.767 | 28.6 |
| BC68 | 4/28/2011 | 21.95 | 7.20 | 0.398 | 2.98 | 0.182 | 0.3 | 21.85 | 7.19 | 0.399 | 2.81 | 1.062 | 0.3 | 21.87 | 7.19 | 0.399 | 2.95 | 2.231 | 3.1 |
| BC69 | 4/28/2011 | 23.02 | 7.39 | 0.395 | 4.46 | 0.174 | 0.4 | 23.02 | 7.38 | 0.395 | 4.36 | 1.010 | 3.3 | 23.00 | 7.35 | 0.395 | 3.96 | 2.042 | 71.4 |
| BC70 | 4/28/2011 | 23.46 | 7.01 | 0.403 | 0.27 | 0.165 | 17.3 | 23.53 | 7.01 | 0.403 | 0.19 | 1.005 | 0.1 | 23.46 | 7.01 | 0.404 | 0.19 | 1.922 | 10.8 |
| BC72 | 4/28/2011 | 21.91 | 7.06 | 0.393 | 1.18 | 0.174 | 5.4 | 21.92 | 7.06 | 0.393 | 1.16 | 0.922 | 5.6 | 21.89 | 7.05 | 0.394 | 1.22 | 1.904 | 12.6 |
| BC75 | 4/28/2011 | 20.00 | 7.64 | 0.387 | 7.27 | 0.178 | 62.2 | 20.02 | 7.63 | 0.387 | 7.30 | 1.463 | 67.6 | 20.02 | 7.63 | 0.387 | 7.38 | 2.645 | 77.1 |
| BC8 | 4/28/2011 | 22.78 | 7.17 | 0.401 | 3.88 | 0.161 | 14.3 | 20.57 | 7.61 | 0.386 | 7.10 | 0.903 | 59.7 | 20.38 | 7.64 | 0.386 | 7.29 | 1.708 | 71.1 |
| BC85 | 4/28/2011 | 21.98 | 7.20 | 0.005 | 0.74 | 0.162 | 0.1 | 21.88 | 7.00 | 0.404 | 0.34 | 1.020 | 0.8 | 21.83 | 7.01 | 0.404 | 0.49 | 2.199 | 1.1 |
| BC86 | 4/28/2011 | 23.97 | 7.13 | 0.399 | 3.96 | 0.158 | -0.1 | 22.61 | 7.01 | 0.399 | 0.63 | 1.401 | 6.6 | 22.51 | 6.99 | 0.400 | 0.40 | 2.810 | 71.1 |
| BC999 | 4/28/2011 | 23.36 | 7.47 | 0.400 | 5.78 | 0.156 | 10.7 | 22.25 | 7.51 | 0.396 | 6.23 | 1.254 | 33.5 | 21.26 | 7.51 | 0.394 | 6.31 | 2.399 | 59.2 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HN31 | 5/2/2011 | 24.01 | 6.86 | 0.334 | 1.76 | 0.112 | 5.7 | 23.96 | 6.92 | 0.332 | 1.66 | 1.423 | 5.5 | 23.59 | 7.07 | 0.337 | 0.58 | 2.419 | 19.7 |
| HN32 | 5/2/2011 | 23.52 | 6.55 | 0.359 | 3.89 | 0.113 | 4.3 | 21.17 | 6.50 | 0.365 | 0.06 | 1.209 | 1.2 | 20.29 | 6.52 | 0.400 | 0.13 | 2.460 | 0.8 |
| HN33 | 5/2/2011 | 21.31 | 7.00 | 0.409 | 8.09 | 0.106 | 24.2 | 21.10 | 7.01 | 0.409 | 8.04 | 1.533 | 27.3 | 21.09 | 7.02 | 0.406 | 8.01 | 3.111 | 37.9 |
| HN35 | 5/2/2011 | 24.10 | 6.27 | 0.351 | 0.75 | 0.174 | 1.4 | 23.29 | 6.35 | 0.351 | 0.14 | 2.313 | 3.0 | 21.96 | 6.43 | 0.364 | 0.18 | 4.692 | 24.3 |
| HN36 | 5/2/2011 | 23.38 | 6.50 | 0.345 | 0.90 | 0.119 | 0.8 | 22.22 | 6.51 | 0.363 | 0.11 | 1.407 | 7.0 | 19.56 | 6.48 | 0.470 | 0.16 | 2.847 | 41.8 |
| HN37 | 5/2/2011 | 23.22 | 6.70 | 0.340 | 4.09 | 0.110 | 4.4 | 23.01 | 6.68 | 0.345 | 3.62 | 2.496 | 5.6 | 20.94 | 6.97 | 0.376 | 3.69 | 4.771 | 18.9 |
| HN38 | 5/2/2011 | 24.04 | 6.34 | 0.354 | 0.83 | 0.098 | 0.9 | 23.27 | 6.39 | 0.355 | 0.20 | 1.836 | 2.0 | 21.74 | 6.51 | 0.359 | 0.30 | 3.638 | 0.7 |
| HN40 | 5/2/2011 | 23.84 | 7.43 | 0.384 | 10.27 | 0.105 | 5.9 | 21.59 | 7.01 | 0.405 | 8.36 | 1.295 | 24.4 | 20.32 | 6.96 | 0.419 | 7.41 | 2.435 | 44.0 |
| HN41 | 5/2/2011 | 20.41 | 6.99 | 0.419 | 7.59 | 0.106 | 49.9 | 20.33 | 7.03 | 0.418 | 7.54 | 1.961 | 110.5 | 20.32 | 7.14 | 0.417 | 7.51 | 3.816 | 192.5 |
| HN42 | 5/2/2011 | 22.12 | 6.76 | 0.378 | 6.82 | 0.096 | 11.2 | 21.56 | 6.79 | 0.387 | 7.01 | 1.432 | 14.7 | 20.83 | 6.79 | 0.390 | 6.49 | 2.684 | 22.1 |
| HN43 | 5/2/2011 | 22.94 | 7.01 | 0.371 | 8.91 | 0.107 | 6.7 | 20.44 | 6.76 | 0.395 | 7.13 | 2.490 | 20.5 | 19.92 | 6.82 | 0.391 | 4.57 | 5.058 | 68.7 |
| HN44 | 5/2/2011 | 24.42 | 6.51 | 0.308 | 4.17 | 0.124 | 1.6 | 24.08 | 6.50 | 0.307 | 3.47 | 1.779 | 2.2 | 22.80 | 6.60 | 0.312 | 0.28 | 3.583 | 3.9 |
| HN1 | 5/5/2011 | 18.50 | 6.92 | 0.249 | 0.06 | 0.209 | 3.1 | 18.28 | 6.94 | 0.249 | 0.05 | 0.762 | 2.9 | 18.21 | 6.97 | 0.250 | 0.12 | 1.582 | 2.9 |
| HN10 | 5/5/2011 | 21.51 | 7.56 | 0.301 | 6.74 | 0.171 | 7.3 | | | | | | | 20.75 | 7.33 | 0.301 | 5.08 | 0.823 | 41.6 |
| HN11 | 5/5/2011 | 23.77 | 8.32 | 0.470 | 9.73 | 0.226 | 12.4 | 22.63 | 7.98 | 0.477 | 7.95 | 1.127 | 13.2 | 22.17 | 7.53 | 0.477 | 4.71 | 2.431 | 47.5 |
| HN12 | 5/5/2011 | 23.50 | 7.75 | 0.459 | 6.00 | 0.192 | 15.1 | 22.68 | 7.66 | 0.459 | 5.29 | 1.781 | 13.8 | 22.39 | 7.50 | 0.469 | 4.24 | 3.637 | 49.3 |
| HN13 | 5/5/2011 | 23.79 | 7.84 | 0.451 | 6.64 | 0.162 | 11.0 | 22.74 | 7.67 | 0.451 | 5.59 | 1.207 | 16.4 | 22.73 | 7.65 | 0.451 | 5.52 | 2.368 | 49.8 |
| HN14 | 5/5/2011 | 23.01 | 8.39 | 0.428 | 10.55 | 0.152 | 18.7 | | | | | | | 21.43 | 8.05 | 0.431 | 9.16 | 0.774 | 42.6 |
| HN15 | 5/5/2011 | 23.16 | 8.29 | 0.396 | 9.72 | 0.188 | 17.4 | 22.71 | 8.12 | 0.397 | 9.09 | 1.072 | 19.5 | 22.36 | 7.90 | 0.399 | 9.62 | 2.117 | 56.2 |
| HN16 | 5/5/2011 | 21.86 | 7.41 | 0.414 | 3.75 | 0.132 | 8.8 | 21.46 | 7.35 | 0.413 | 2.84 | 1.984 | 10.1 | 21.38 | 7.30 | 0.413 | 2.53 | 3.872 | 39.7 |
| HN18 | 5/5/2011 | 19.85 | 6.91 | 0.304 | 0.23 | 0.253 | 2.1 | 19.32 | 6.93 | 0.304 | 0.13 | 0.644 | 1.9 | 18.78 | 6.97 | 0.302 | 0.09 | 1.434 | 6.8 |
| HN19 | 5/5/2011 | 18.42 | 6.93 | 0.250 | 0.05 | 0.328 | 4.0 | 18.03 | 6.96 | 0.250 | 0.09 | 1.551 | 4.3 | 17.87 | 6.97 | 0.265 | 0.10 | 3.257 | 4.0 |
| HN2 | 5/5/2011 | 20.44 | 7.17 | 0.356 | 2.41 | 0.299 | 0.4 | 18.74 | 7.12 | 0.353 | 0.51 | 1.267 | -0.1 | 18.53 | 7.14 | 0.355 | 0.44 | 2.474 | 1.5 |
| HN20 | 5/5/2011 | 19.43 | 6.89 | 0.254 | 0.13 | 0.274 | 2.7 | 18.67 | 6.88 | 0.249 | 0.04 | 1.474 | 2.9 | 18.41 | 6.90 | 0.249 | 0.06 | 3.801 | 2.9 |
| HN21 | 5/5/2011 | 19.46 | 6.90 | 0.293 | 0.23 | 0.403 | 1.0 | 18.93 | 6.90 | 0.292 | 0.05 | 1.281 | 1.1 | 18.83 | 6.94 | 0.292 | 0.11 | 2.506 | 10.1 |
| HN22 | 5/5/2011 | 19.36 | 6.76 | 0.261 | 0.09 | 0.569 | 2.2 | 18.89 | 6.79 | 0.257 | 0.05 | 1.498 | 2.4 | 18.81 | 6.87 | 0.254 | 0.13 | 2.798 | 3.1 |
| HN24 | 5/5/2011 | 20.85 | 7.12 | 0.338 | 2.58 | 0.285 | 0.7 | 20.07 | 7.10 | 0.336 | 1.56 | 0.801 | 1.0 | 19.65 | 7.08 | 0.335 | 0.16 | 1.930 | 5.6 |
| HN25 | 5/5/2011 | 20.65 | 6.98 | 0.312 | 1.09 | 0.335 | -0.1 | 20.07 | 6.98 | 0.312 | 0.65 | 1.516 | -0.1 | 19.82 | 7.02 | 0.300 | 0.37 | 3.567 | 5.4 |
| HN26 | 5/5/2011 | 22.34 | 7.26 | 0.344 | 4.33 | 0.226 | 3.2 | 19.88 | 7.19 | 0.344 | 2.17 | 2.086 | 3.7 | 19.11 | 7.21 | 0.375 | 2.53 | 3.935 | 12.3 |
| HN27 | 5/5/2011 | 20.55 | 7.34 | 0.360 | 5.09 | 0.260 | 5.0 | 18.88 | 7.26 | 0.389 | 4.50 | 3.163 | 13.9 | 18.15 | 7.23 | 0.395 | 4.61 | 6.239 | 24.9 |
| HN28 | 5/5/2011 | 19.80 | 6.83 | 0.282 | 0.41 | 0.285 | 1.4 | 19.33 | 6.73 | 0.276 | 0.04 | 2.055 | 2.5 | 18.50 | 6.64 | 0.287 | 0.06 | 3.800 | 4.9 |
| HN29 | 5/5/2011 | 20.40 | 7.02 | 0.266 | 1.41 | 0.334 | 1.9 | 19.51 | 6.94 | 0.273 | 0.04 | 2.129 | 3.2 | 14.79 | 6.67 | 0.348 | 0.05 | 4.587 | 14.8 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HN3 | 5/5/2011 | 18.51 | 6.99 | 0.262 | 0.21 | 0.579 | 1.8 | 17.78 | 6.97 | 0.276 | 0.08 | 1.186 | 0.9 | 17.33 | 7.02 | 0.274 | 0.10 | 1.806 | 0.6 |
| HN30 | 5/5/2011 | 19.85 | 6.94 | 0.291 | 1.31 | 0.255 | 1.4 | 19.82 | 6.93 | 0.291 | 1.21 | 1.665 | 1.1 | 19.80 | 7.00 | 0.291 | 1.30 | 3.186 | 1.7 |
| HN5 | 5/5/2011 | 20.98 | 7.90 | 0.407 | 8.75 | 0.176 | 24.0 | 20.70 | 7.82 | 0.407 | 8.70 | 2.804 | 27.3 | 20.67 | 7.78 | 0.408 | 8.85 | 5.658 | 38.8 |
| BC1 | 5/11/2011 | 20.48 | 7.15 | 0.343 | 1.69 | 0.081 | 9.1 | 20.22 | 7.17 | 0.341 | 1.72 | 2.276 | 9.3 | 20.44 | 7.42 | 0.345 | 3.82 | 1.882 | 12.5 |
| BC108 | 5/11/2011 | 19.73 | 7.33 | 0.313 | 6.31 | 0.045 | 40.1 | | | | | | | | | | | | |
| BC109 | 5/11/2011 | 21.44 | 7.10 | 0.314 | 3.21 | 0.234 | 19.2 | 21.03 | 7.10 | 0.311 | 3.32 | 1.246 | 19.4 | 20.93 | 7.10 | 0.310 | 3.39 | 2.771 | 20.3 |
| BC15 | 5/11/2011 | 19.13 | 7.31 | 0.307 | 3.13 | 0.040 | 23.2 | 18.94 | 7.32 | 0.307 | 3.12 | 1.372 | 23.3 | 18.90 | 7.34 | 0.308 | 3.17 | 2.303 | 23.9 |
| BC2 | 5/11/2011 | 20.47 | 7.13 | 0.331 | 0.99 | 0.087 | 9.8 | 20.42 | 7.15 | 0.331 | 0.98 | 0.910 | 9.9 | 20.38 | 7.20 | 0.332 | 0.97 | 1.991 | 195.2 |
| BC27 | 5/11/2011 | 21.30 | 7.07 | 0.320 | 3.04 | 0.134 | 12.6 | 20.92 | 7.06 | 0.321 | 2.91 | 1.581 | 13.7 | 20.87 | 7.07 | 0.318 | 3.10 | 3.181 | 14.3 |
| BC32 | 5/11/2011 | 20.45 | 7.36 | 0.299 | 5.82 | 0.069 | 32.9 | 19.85 | 7.32 | 0.299 | 5.67 | 0.960 | 34.7 | 19.79 | 7.32 | 0.299 | 5.75 | 2.077 | 35.6 |
| BC39 | 5/11/2011 | 20.18 | 7.34 | 0.297 | 5.84 | 0.133 | 34.7 | 19.75 | 7.34 | 0.298 | 5.72 | 1.066 | 37.2 | 19.67 | 7.33 | 0.298 | 5.69 | 2.218 | 39.1 |
| BC4 | 5/11/2011 | 20.84 | 7.23 | 0.311 | 1.93 | 0.102 | 22.7 | 20.61 | 7.25 | 0.311 | 1.87 | 1.388 | 22.9 | 20.51 | 7.28 | 0.311 | 1.87 | 2.787 | 22.5 |
| BC40 | 5/11/2011 | 20.31 | 7.38 | 0.296 | 6.13 | 0.171 | 33.7 | 19.41 | 7.39 | 0.297 | 6.24 | 0.808 | 37.0 | 19.33 | 7.39 | 0.297 | 6.30 | 1.961 | 39.4 |
| BC41 | 5/11/2011 | 20.43 | 7.27 | 0.303 | 4.96 | 0.344 | 28.8 | 20.06 | 7.27 | 0.302 | 5.06 | 1.222 | 33.5 | 19.97 | 7.28 | 0.302 | 5.24 | 2.342 | 32.1 |
| BC42 | 5/11/2011 | 21.20 | 7.15 | 0.327 | 4.10 | 0.182 | 14.0 | 20.78 | 7.13 | 0.324 | 4.00 | 2.150 | 14.4 | 20.74 | 7.13 | 0.325 | 4.08 | 4.280 | 15.9 |
| BC48 | 5/11/2011 | 19.24 | 7.44 | 0.297 | 6.48 | 0.311 | 40.6 | 19.09 | 7.43 | 0.297 | 6.46 | 0.904 | 41.7 | 19.03 | 7.42 | 0.297 | 6.50 | 2.173 | 42.1 |
| BC51 | 5/11/2011 | 20.42 | 7.35 | 0.313 | 6.00 | 0.161 | 39.4 | 20.40 | 7.35 | 0.313 | 6.02 | 0.770 | 39.4 | 20.34 | 7.35 | 0.313 | 6.10 | 1.643 | 40.2 |
| BC52 | 5/11/2011 | 21.58 | 7.21 | 0.318 | 5.00 | 0.141 | 14.7 | 20.44 | 7.05 | 0.314 | 3.56 | 0.000 | 19.7 | 20.37 | 7.05 | 0.315 | 3.60 | 2.071 | 20.1 |
| BC53 | 5/11/2011 | 21.14 | 7.20 | 0.306 | 4.60 | 0.051 | 19.3 | 20.56 | 7.15 | 0.306 | 4.21 | 1.003 | 20.7 | 20.47 | 7.16 | 0.306 | 4.26 | 1.889 | 22.4 |
| BC6 | 5/11/2011 | 19.94 | 7.24 | 0.324 | 2.63 | 0.086 | 18.7 | 19.74 | 7.25 | 0.325 | 2.60 | 1.502 | 18.7 | 19.71 | 7.26 | 0.325 | 2.59 | 2.421 | 83.0 |
| BC63 | 5/11/2011 | 18.60 | 7.30 | 0.296 | 4.31 | 0.210 | 37.0 | 18.38 | 7.29 | 0.295 | 4.25 | 1.897 | 39.1 | 18.26 | 7.31 | 0.296 | 4.19 | 2.702 | 35.9 |
| BC64 | 5/11/2011 | 17.95 | 7.39 | 0.294 | 5.46 | 0.149 | 56.5 | 17.62 | 7.38 | 0.294 | 5.45 | 2.206 | 58.2 | 17.57 | 7.39 | 0.294 | 5.39 | 3.704 | 60.0 |
| BC65 | 5/11/2011 | 18.38 | 7.36 | 0.296 | 4.29 | 0.272 | 35.9 | 18.32 | 7.37 | 0.295 | 4.54 | 2.098 | 36.1 | 17.99 | 7.38 | 0.296 | 4.65 | 4.563 | 120.6 |
| BC66 | 5/11/2011 | 19.16 | 7.27 | 0.302 | 3.39 | 0.377 | 26.8 | 18.94 | 7.29 | 0.302 | 3.29 | 1.487 | 29.2 | 18.86 | 7.31 | 0.302 | 3.40 | 2.391 | 34.2 |
| BC67 | 5/11/2011 | 20.62 | 7.19 | 0.316 | 2.29 | 0.114 | 15.2 | 20.11 | 7.21 | 0.315 | 2.05 | 1.037 | 16.6 | 19.52 | 7.19 | 0.317 | 1.20 | 2.529 | 19.4 |
| BC68 | 5/11/2011 | 19.65 | 7.16 | 0.326 | 2.53 | 0.086 | 16.0 | 19.63 | 7.18 | 0.326 | 2.50 | 0.637 | 29.0 | 19.58 | 7.18 | 0.327 | 2.43 | 1.888 | 65.1 |
| BC69 | 5/11/2011 | 19.74 | 7.15 | 0.337 | 2.29 | 0.108 | 10.4 | 19.65 | 7.17 | 0.338 | 2.29 | 1.498 | 10.6 | 19.62 | 7.19 | 0.339 | 2.44 | 2.689 | 11.7 |
| BC70 | 5/11/2011 | 20.46 | 7.06 | 0.319 | 1.18 | 0.100 | 13.5 | 20.35 | 7.05 | 0.319 | 1.11 | 1.643 | 15.7 | 20.32 | 7.06 | 0.319 | 1.07 | 2.944 | 41.6 |
| BC72 | 5/11/2011 | 20.83 | 7.10 | 0.323 | 1.27 | 0.115 | 14.3 | 20.78 | 7.10 | 0.324 | 1.21 | 1.207 | 13.7 | 20.78 | 7.12 | 0.324 | 1.20 | 1.477 | 13.1 |
| BC75 | 5/11/2011 | 20.59 | 7.12 | 0.354 | 1.85 | 0.117 | 11.3 | 20.25 | 7.12 | 0.348 | 2.11 | 1.936 | 16.9 | 19.51 | 7.15 | 0.335 | 2.84 | 3.930 | 32.8 |
| BC8 | 5/11/2011 | 20.77 | 7.30 | 0.324 | 3.13 | 0.056 | 19.2 | 19.38 | 7.33 | 0.320 | 3.27 | 2.159 | 20.4 | 19.36 | 7.35 | 0.319 | 3.32 | 4.143 | 26.1 |
| BC80 | 5/11/2011 | 21.78 | 7.34 | 0.305 | 5.69 | 0.035 | 27.1 | 19.95 | 7.29 | 0.300 | 5.51 | 1.013 | 29.6 | 19.82 | 7.31 | 0.300 | 5.54 | 2.331 | 40.0 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BC85 | 5/11/2011 | 19.96 | 7.18 | 0.318 | 1.68 | 0.046 | 26.9 | 19.26 | 7.19 | 0.306 | 1.73 | 1.106 | 26.6 | 18.99 | 7.19 | 0.304 | 1.71 | 2.807 | 30.3 |
| BC86 | 5/11/2011 | 20.21 | 7.27 | 0.312 | 3.82 | 0.142 | 26.7 | 19.14 | 7.28 | 0.312 | 3.52 | 2.160 | 29.7 | 19.07 | 7.27 | 0.312 | 3.22 | 3.380 | 39.2 |
| BC89 | 5/11/2011 | 22.52 | 7.33 | 0.325 | 5.53 | 0.139 | 11.7 | 20.37 | 7.07 | 0.321 | 3.24 | 1.001 | 17.2 | 20.17 | 7.01 | 0.332 | 2.25 | 2.105 | 15.2 |
| BC90 | 5/11/2011 | 20.25 | 7.34 | 0.313 | 6.05 | 0.102 | 45.0 | 20.20 | 7.34 | 0.313 | 6.06 | 1.071 | 46.7 | 20.16 | 7.33 | 0.313 | 6.07 | 2.095 | 47.4 |
| BC998 | 5/11/2011 | 20.33 | 7.23 | 0.299 | 4.87 | 0.191 | 29.9 | 19.71 | 7.21 | 0.299 | 4.76 | 1.201 | 33.1 | 19.68 | 7.20 | 0.299 | 4.73 | 2.312 | 30.9 |
| HN31 | 5/16/2011 | 21.70 | 7.15 | 0.331 | 2.89 | 0.088 | 5.9 | 20.84 | 7.11 | 0.322 | 2.38 | 1.729 | 10.5 | 20.61 | 7.18 | 0.311 | 2.95 | 3.440 | 38.0 |
| HN32 | 5/16/2011 | 22.51 | 7.11 | 0.358 | 1.66 | 0.125 | 0.3 | 21.50 | 7.06 | 0.358 | 0.61 | 1.599 | 0.2 | 19.20 | 6.71 | 0.457 | 0.67 | 3.279 | 3.8 |
| HN33 | 5/16/2011 | 19.87 | 7.52 | 0.307 | 6.71 | 0.117 | 36.0 | 19.82 | 7.53 | 0.307 | 6.74 | 1.633 | 35.9 | 19.81 | 7.54 | 0.307 | 6.78 | 3.843 | 49.4 |
| HN35 | 5/16/2011 | 23.12 | 7.22 | 0.331 | 4.49 | 0.107 | 4.0 | 21.54 | 7.10 | 0.328 | 2.29 | 2.457 | 4.8 | 20.38 | 6.99 | 0.369 | 0.43 | 4.751 | 16.6 |
| HN37 | 5/16/2011 | 21.60 | 7.24 | 0.308 | 4.22 | 0.104 | 13.0 | 20.09 | 7.35 | 0.302 | 5.18 | 2.694 | 20.5 | 19.87 | 7.36 | 0.301 | 5.23 | 5.576 | 25.7 |
| HN38 | 5/16/2011 | 22.48 | 7.04 | 0.352 | 1.89 | 0.098 | 1.6 | 21.84 | 7.02 | 0.348 | 0.88 | 2.088 | 1.4 | 20.55 | 6.94 | 0.372 | 0.68 | 4.231 | 3.6 |
| HN40 | 5/16/2011 | 22.59 | 8.39 | 0.329 | 10.96 | 0.101 | 5.3 | 19.43 | 7.46 | 0.304 | 6.10 | 1.636 | 41.7 | 19.39 | 7.45 | 0.303 | 6.17 | 3.258 | 47.0 |
| HN41 | 5/16/2011 | 19.35 | 7.47 | 0.301 | 6.37 | 0.096 | 50.2 | 19.29 | 7.46 | 0.301 | 6.44 | 2.570 | 56.0 | 19.27 | 7.46 | 0.301 | 6.55 | 5.259 | 72.8 |
| HN42 | 5/16/2011 | 21.06 | 7.81 | 0.302 | 7.64 | 0.108 | 20.4 | 19.89 | 7.55 | 0.302 | 6.39 | 1.678 | 26.9 | 19.62 | 7.51 | 0.301 | 6.28 | 3.298 | 30.3 |
| HN43 | 5/16/2011 | 21.67 | 8.53 | 0.296 | 8.05 | 0.101 | 15.6 | 19.61 | 7.51 | 0.301 | 6.43 | 2.747 | 32.4 | 19.50 | 7.47 | 0.301 | 6.37 | 5.528 | 33.2 |
| HN44 | 5/16/2011 | 21.57 | 7.09 | 0.348 | 2.59 | 0.110 | 2.1 | 21.19 | 7.07 | 0.345 | 2.10 | 2.020 | 2.6 | 20.55 | 7.04 | 0.327 | 0.77 | 4.149 | 8.0 |
| HN10 | 5/18/2011 | 23.48 | 7.52 | 0.435 | 5.90 | 0.102 | -1.2 | 22.98 | 7.48 | 0.435 | 5.56 | 0.460 | -1.1 | 22.77 | 7.46 | 0.440 | 5.35 | 0.935 | 10.1 |
| HN11 | 5/18/2011 | 24.13 | 7.65 | 0.436 | 7.07 | 0.108 | 1.6 | 21.47 | 7.13 | 0.380 | 0.69 | 1.475 | 3.0 | 21.02 | 7.13 | 0.372 | 0.95 | 2.775 | 5.7 |
| HN12 | 5/18/2011 | 23.37 | 7.59 | 0.397 | 8.02 | 0.116 | 0.0 | 20.76 | 7.15 | 0.365 | 2.43 | 1.939 | 0.3 | 19.89 | 7.13 | 0.349 | 1.60 | 3.720 | 11.1 |
| HN13 | 5/18/2011 | 20.95 | 7.12 | 0.357 | 2.07 | 0.124 | -1.5 | 20.14 | 7.11 | 0.352 | 1.74 | 1.401 | -1.7 | 19.94 | 7.11 | 0.364 | 2.04 | 3.052 | -1.1 |
| HN14 | 5/18/2011 | 20.74 | 7.23 | 0.344 | 3.52 | 0.107 | -0.2 | 18.98 | 7.16 | 0.370 | 1.96 | 0.762 | 0.3 | 18.84 | 7.15 | 0.398 | 1.81 | 1.491 | 1.0 |
| HN15 | 5/18/2011 | 22.95 | 8.00 | 0.400 | 9.58 | 0.096 | 0.3 | 20.33 | 7.23 | 0.333 | 3.72 | 1.539 | 0.2 | 19.60 | 7.14 | 0.312 | 2.29 | 3.096 | 7.9 |
| HN16 | 5/18/2011 | 20.33 | 7.03 | 0.283 | 0.49 | 0.124 | -0.9 | 20.25 | 7.03 | 0.284 | 0.54 | 1.838 | -0.8 | 20.23 | 7.04 | 0.283 | 0.70 | 3.742 | 10.0 |
| HN5 | 5/18/2011 | 22.68 | 7.72 | 0.415 | 6.72 | 0.140 | 4.4 | 21.86 | 7.55 | 0.402 | 5.45 | 3.318 | 9.1 | 21.57 | 7.44 | 0.399 | 3.96 | 6.478 | 15.4 |
| HN8 | 5/18/2011 | 24.05 | 7.39 | 0.384 | 3.97 | 0.095 | -1.7 | 22.21 | 7.28 | 0.420 | 2.31 | 1.554 | -1.4 | 20.30 | 6.84 | 0.406 | 0.65 | 2.943 | 10.2 |
| HN9 | 5/18/2011 | 23.12 | 7.47 | 0.523 | 6.32 | 0.116 | 0.5 | 22.32 | 7.48 | 0.534 | 6.56 | 0.951 | 0.3 | 21.31 | 7.22 | 0.551 | 3.62 | 2.032 | 0.9 |
| HN2 | 5/19/2011 | 22.59 | 7.30 | 0.422 | 5.00 | 0.056 | 1.0 | 21.16 | 7.28 | 0.491 | 2.67 | 1.864 | 0.5 | 19.88 | 7.22 | 0.564 | 2.19 | 3.747 | 209.0 |
| HN24 | 5/19/2011 | 22.27 | 7.25 | 0.326 | 4.87 | 0.194 | 3.3 | 22.22 | 7.25 | 0.326 | 4.97 | 1.059 | 292.2 | 21.18 | 7.12 | 0.326 | 2.58 | 2.339 | 3.8 |
| HN26 | 5/19/2011 | 22.23 | 7.22 | 0.354 | 4.31 | 0.109 | 2.1 | 20.65 | 7.19 | 0.346 | 3.15 | 2.532 | 6.8 | 20.41 | 7.17 | 0.377 | 3.90 | 5.022 | 35.9 |
| HN27 | 5/19/2011 | 21.85 | 7.38 | 0.326 | 5.41 | 0.138 | 10.6 | 20.21 | 7.39 | 0.326 | 4.96 | 4.213 | 18.5 | 20.01 | 7.24 | 0.416 | 1.10 | 8.564 | 519.7 |
| HN28 | 5/19/2011 | 22.56 | 7.10 | 0.318 | 2.63 | 0.143 | -2.0 | 21.83 | 7.05 | 0.323 | 0.34 | 2.120 | -0.8 | 20.60 | 6.87 | 0.319 | 0.47 | 4.353 | 2.2 |
| HN29 | 5/19/2011 | 23.81 | 7.19 | 0.294 | 3.21 | 0.109 | -2.1 | 21.24 | 7.06 | 0.315 | 0.27 | 2.646 | 2.4 | 17.12 | 6.84 | 0.428 | 0.53 | 5.470 | 153.5 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BC1 | 5/24/2011 | 22.59 | 7.15 | 0.314 | 2.81 | 0.146 | 6.8 | 22.57 | 7.17 | 0.314 | 2.99 | 2.337 | 6.2 | 22.56 | 7.21 | 0.314 | 3.43 | 4.635 | 9.7 |
| BC11 | 5/24/2011 | 22.45 | 7.15 | 0.314 | 2.78 | 0.157 | 6.6 | 22.41 | 7.15 | 0.314 | 2.85 | 1.739 | 6.8 | 22.37 | 7.25 | 0.310 | 3.57 | 3.682 | 9.5 |
| BC2 | 5/24/2011 | 22.14 | 7.21 | 0.316 | 3.77 | 0.151 | 14.9 | 21.86 | 7.22 | 0.316 | 3.86 | 1.759 | 14.9 | 21.84 | 7.24 | 0.316 | 4.01 | 3.532 | 15.6 |
| BC6 | 5/24/2011 | 22.46 | 7.16 | 0.315 | 3.18 | 0.168 | 7.9 | 22.36 | 7.16 | 0.315 | 3.24 | 2.172 | 7.8 | 22.35 | 7.15 | 0.315 | 3.38 | 4.031 | 220.8 |
| BC66 | 5/24/2011 | 22.05 | 7.22 | 0.310 | 3.16 | 0.111 | 11.0 | 22.01 | 7.25 | 0.310 | 3.22 | 1.740 | 11.2 | 21.99 | 7.30 | 0.308 | 3.64 | 3.568 | 11.7 |
| BC67 | 5/24/2011 | 22.83 | 7.24 | 0.312 | 3.36 | 0.181 | 10.3 | 22.53 | 7.24 | 0.312 | 3.33 | 1.714 | 13.7 | 22.42 | 7.25 | 0.312 | 3.67 | 3.389 | -3.0 |
| BC68 | 5/24/2011 | 22.43 | 7.25 | 0.314 | 3.43 | 0.181 | 11.8 | 22.35 | 7.27 | 0.314 | 3.55 | 2.063 | 11.9 | 22.35 | 7.30 | 0.314 | 3.90 | 4.100 | 14.7 |
| BC69 | 5/24/2011 | 22.50 | 7.22 | 0.313 | 3.55 | 0.195 | 11.3 | 22.41 | 7.24 | 0.314 | 3.17 | 2.177 | 19.6 | 22.36 | 7.25 | 0.315 | 3.22 | 3.912 | 11.5 |
| BC70 | 5/24/2011 | 22.25 | 7.26 | 0.314 | 3.16 | 0.183 | 14.6 | 22.12 | 7.27 | 0.314 | 3.04 | 2.377 | 20.5 | 22.10 | 7.28 | 0.314 | 2.68 | 4.353 | 25.6 |
| BC72 | 5/24/2011 | 22.21 | 7.25 | 0.312 | 3.31 | 0.163 | 13.0 | 22.21 | 7.27 | 0.313 | 3.37 | 0.750 | 13.2 | 22.20 | 7.37 | 0.310 | 3.95 | 1.777 | 13.7 |
| BC75 | 5/24/2011 | 22.52 | 7.18 | 0.310 | 2.46 | 0.132 | 3.8 | 22.51 | 7.20 | 0.310 | 2.51 | 2.094 | 3.7 | 22.50 | 7.27 | 0.310 | 2.86 | 4.022 | 3.8 |
| BC8 | 5/24/2011 | 22.58 | 7.16 | 0.311 | 2.93 | 0.134 | 7.4 | 22.24 | 7.18 | 0.312 | 3.36 | 2.692 | 9.7 | 22.21 | 7.19 | 0.311 | 3.56 | 5.428 | 13.1 |
| BC85 | 5/24/2011 | 22.24 | 7.24 | 0.312 | 3.62 | 0.162 | 14.0 | 22.17 | 7.25 | 0.313 | 3.71 | 1.744 | 13.3 | 22.16 | 7.33 | 0.310 | 4.15 | 3.620 | 15.8 |
| BC86 | 5/24/2011 | 22.04 | 7.23 | 0.317 | 4.13 | 0.140 | 10.7 | 21.92 | 7.31 | 0.317 | 4.38 | 2.032 | 11.6 | 21.85 | 7.39 | 0.315 | 5.54 | 3.985 | 14.7 |
| BC999 | 5/24/2011 | 21.53 | 7.38 | 0.317 | 4.73 | 0.154 | 18.8 | 21.50 | 7.39 | 0.317 | 4.79 | 2.817 | 21.2 | 21.48 | 7.40 | 0.317 | 4.93 | 5.876 | 31.3 |
| BC108 | 5/26/2011 | 22.08 | 7.58 | 0.319 | 6.38 | 0.135 | 18.2 | | | | | | | | | | | | |
| BC109 | 5/26/2011 | 22.15 | 7.40 | 0.323 | 4.84 | 0.160 | 14.3 | 22.11 | 7.41 | 0.322 | 4.92 | 1.829 | 15.0 | 22.09 | 7.46 | 0.321 | 5.32 | 3.621 | 16.2 |
| BC27 | 5/26/2011 | 21.89 | 7.44 | 0.323 | 5.49 | 0.176 | 18.6 | 21.87 | 7.46 | 0.323 | 5.60 | 1.789 | 18.6 | 21.85 | 7.50 | 0.321 | 6.13 | 3.632 | 20.9 |
| BC32 | 5/26/2011 | 22.50 | 7.32 | 0.317 | 4.34 | 0.159 | 10.2 | 22.50 | 7.32 | 0.318 | 4.60 | 1.688 | 9.7 | 22.36 | 7.42 | 0.316 | 4.82 | 3.373 | 13.2 |
| BC40 | 5/26/2011 | 22.03 | 7.52 | 0.323 | 6.80 | 0.323 | 15.2 | 21.85 | 7.55 | 0.321 | 7.16 | 1.523 | 15.5 | 21.84 | 7.61 | 0.319 | 8.07 | 3.266 | 16.4 |
| BC41 | 5/26/2011 | 21.95 | 7.53 | 0.326 | 7.09 | 0.133 | 18.3 | 21.81 | 7.54 | 0.326 | 7.14 | 1.420 | 18.4 | 21.78 | 7.59 | 0.322 | 7.73 | 3.696 | 18.2 |
| BC42 | 5/26/2011 | 22.25 | 7.44 | 0.323 | 6.34 | 0.316 | 17.1 | 21.78 | 7.45 | 0.323 | 6.39 | 2.515 | 17.4 | 21.75 | 7.46 | 0.323 | 6.54 | 5.114 | 23.4 |
| BC51 | 5/26/2011 | 22.66 | 7.30 | 0.319 | 3.87 | 0.144 | 6.9 | 22.52 | 7.35 | 0.319 | 4.03 | 1.512 | 7.3 | 22.54 | 7.45 | 0.319 | 4.74 | 2.981 | 7.9 |
| BC80 | 5/26/2011 | 22.92 | 7.25 | 0.318 | 3.97 | 0.165 | 7.8 | 22.58 | 7.23 | 0.319 | 3.66 | 2.362 | 8.2 | 22.56 | 7.23 | 0.319 | 3.66 | 4.456 | 9.6 |
| BC90 | 5/26/2011 | 22.84 | 7.24 | 0.317 | 3.32 | 0.175 | 7.5 | 22.64 | 7.25 | 0.316 | 3.42 | 1.206 | 7.7 | 22.63 | 7.28 | 0.316 | 3.62 | 2.723 | 7.7 |
| BC998 | 5/26/2011 | 22.25 | 7.39 | 0.318 | 5.55 | 0.137 | 13.4 | 22.15 | 7.40 | 0.317 | 5.91 | 2.041 | 13.5 | 22.12 | 7.45 | 0.316 | 6.83 | 4.019 | 14.9 |
| HN1 | 6/7/2011 | 26.43 | 7.04 | 0.648 | 2.90 | 0.112 | 1.9 | 24.44 | 6.91 | 0.659 | -0.57 | 1.515 | 3.0 | 22.57 | 6.81 | 0.703 | 0.08 | 2.994 | 9.0 |
| HN11 | 6/7/2011 | 28.63 | 7.15 | 0.700 | -0.11 | 0.108 | 4.2 | 25.84 | 7.18 | 0.694 | -1.59 | 1.527 | 3.3 | 25.65 | 7.37 | 0.697 | -1.91 | 2.814 | 2.6 |
| HN12 | 6/7/2011 | 27.40 | 7.01 | 0.693 | 0.37 | 0.080 | 6.1 | 25.71 | 7.10 | 0.695 | 0.13 | 2.365 | 3.0 | 25.28 | 7.30 | 0.696 | 0.80 | 4.746 | 2.1 |
| HN13 | 6/7/2011 | 27.86 | 6.89 | 0.706 | -0.35 | 0.108 | 5.6 | 25.78 | 6.92 | 0.703 | -0.02 | 1.908 | 2.8 | 25.41 | 7.00 | 0.713 | 0.49 | 3.734 | 2.0 |
| HN14 | 6/7/2011 | 26.33 | 6.97 | 0.706 | 0.09 | 0.111 | 5.4 | 25.53 | 7.05 | 0.710 | -0.03 | 1.103 | 5.4 | 25.25 | 7.13 | 0.721 | -0.02 | 2.066 | 4.8 |
| HN15 | 6/7/2011 | 26.76 | 7.05 | 0.666 | 1.02 | 0.112 | 2.5 | 24.58 | 6.89 | 0.703 | -0.79 | 1.877 | 6.5 | 23.58 | 6.95 | 0.714 | -0.76 | 3.677 | 16.5 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HN16 | 6/7/2011 | 25.56 | 6.90 | 0.655 | 0.24 | 0.100 | 3.5 | 23.72 | 6.82 | 0.687 | -0.75 | 2.681 | 8.2 | 23.41 | 6.86 | 0.695 | -0.66 | 5.248 | 9.3 |
| HN17 | 6/7/2011 | 25.93 | 7.00 | 0.655 | 1.85 | 0.117 | 1.4 | 23.83 | 6.83 | 0.693 | -1.22 | 1.714 | 15.3 | 22.31 | 6.77 | 0.770 | -0.94 | 3.310 | 27.2 |
| HN18 | 6/7/2011 | 26.68 | 7.09 | 0.663 | 3.56 | 0.103 | 1.7 | 25.20 | 6.93 | 0.673 | 0.57 | 1.602 | 2.2 | 21.66 | 6.84 | 0.785 | 1.22 | 3.453 | 9.8 |
| HN19 | 6/7/2011 | 26.19 | 7.08 | 0.650 | 2.59 | 0.114 | 1.3 | 23.04 | 6.84 | 0.695 | -0.41 | 2.721 | 9.1 | 21.74 | 6.96 | 0.760 | 0.42 | 5.347 | 5.6 |
| HN20 | 6/7/2011 | 26.89 | 7.12 | 0.644 | 5.38 | 0.080 | 1.7 | 22.75 | 6.81 | 0.682 | 0.49 | 2.947 | 11.9 | 22.02 | 6.96 | 0.716 | 0.91 | 5.819 | 7.9 |
| HN21 | 6/7/2011 | 26.94 | 7.11 | 0.660 | 3.65 | 0.112 | 1.6 | 24.05 | 7.01 | 0.671 | 0.30 | 2.039 | 4.7 | 21.88 | 7.11 | 0.715 | 0.98 | 4.037 | 27.4 |
| HN22 | 6/7/2011 | 27.81 | 7.21 | 0.645 | 4.74 | 0.094 | 2.6 | 23.52 | 7.13 | 0.673 | 1.00 | 2.248 | 7.5 | 22.01 | 7.29 | 0.710 | 1.60 | 4.575 | 10.2 |
| HN3 | 6/7/2011 | 26.12 | 6.99 | 0.661 | 1.75 | 0.035 | 1.5 | 23.77 | 6.79 | 0.746 | -0.45 | 2.014 | 15.0 | 22.05 | 6.78 | 0.867 | 0.23 | 3.915 | 18.9 |
| HN33 | 6/7/2011 | 27.55 | 7.34 | 0.340 | 5.26 | 0.137 | 61.9 | 25.95 | 7.06 | 0.344 | 2.13 | 2.107 | 63.3 | 23.06 | 6.93 | 0.355 | 0.60 | 4.286 | 64.5 |
| HN36 | 6/7/2011 | 28.43 | 7.58 | 0.334 | 9.03 | 0.142 | 62.2 | 23.00 | 6.80 | 0.346 | 0.40 | 1.940 | 63.0 | 21.25 | 6.62 | 0.386 | 0.67 | 3.885 | 63.4 |
| HN37 | 6/7/2011 | 29.71 | 7.87 | 0.337 | 10.86 | 0.108 | 62.9 | 22.78 | 6.87 | 0.346 | 0.36 | 3.132 | 63.0 | 21.27 | 6.79 | 0.372 | 0.75 | 6.197 | 63.3 |
| HN39 | 6/7/2011 | 27.64 | 7.50 | 0.345 | 7.31 | 0.116 | 63.4 | 22.73 | 6.78 | 0.355 | 0.37 | 2.168 | 62.2 | 19.72 | 6.47 | 0.441 | 0.73 | 4.255 | 63.7 |
| HN40 | 6/7/2011 | 28.20 | 7.28 | 0.345 | 4.87 | 0.088 | 62.6 | 25.62 | 7.03 | 0.345 | 1.08 | 2.379 | 63.4 | 23.85 | 6.98 | 0.347 | 0.70 | 4.579 | 67.3 |
| HN41 | 6/7/2011 | 28.24 | 7.78 | 0.337 | 8.48 | 0.096 | 63.1 | 26.98 | 7.30 | 0.341 | 4.78 | 2.914 | 63.0 | 22.39 | 7.01 | 0.357 | 0.88 | 5.613 | 65.6 |
| HN42 | 6/7/2011 | 28.35 | 8.17 | 0.331 | 10.87 | 0.077 | 62.3 | 25.02 | 7.15 | 0.341 | 2.38 | 1.790 | 62.1 | 21.97 | 6.95 | 0.370 | 0.46 | 3.792 | 69.0 |
| HN43 | 6/7/2011 | 28.82 | 8.83 | 0.319 | 12.09 | 0.269 | 62.5 | 23.19 | 7.04 | 0.344 | 0.27 | 3.015 | 63.7 | 20.37 | 7.05 | 0.360 | 0.61 | 6.143 | 63.2 |
| HN44 | 6/7/2011 | 27.79 | 7.21 | 0.332 | 4.35 | 0.064 | 62.0 | 23.42 | 6.84 | 0.344 | 0.33 | 2.607 | 62.5 | 20.59 | 6.94 | 0.384 | 0.54 | 5.140 | 73.3 |
| HN5 | 6/7/2011 | 27.94 | 7.14 | 0.650 | 1.82 | 0.173 | 4.0 | 23.88 | 6.83 | 0.618 | -1.20 | 3.408 | 5.8 | 20.53 | 6.94 | 0.879 | -1.43 | 6.807 | 13.2 |
| INA6 | 6/10/2011 | 25.84 | 7.21 | 0.358 | 4.01 | 0.089 | 68.9 | 25.81 | 7.21 | 0.358 | 3.92 | 3.190 | 68.3 | 25.77 | 7.23 | 0.358 | 4.10 | 6.470 | 71.3 |
| INE51 | 6/10/2011 | 25.95 | 7.35 | 0.357 | 5.82 | 0.130 | 74.1 | | | | | | | | | | | | |
| INE52 | 6/10/2011 | 26.02 | 7.36 | 0.358 | 5.70 | 0.132 | 74.7 | 25.94 | 7.36 | 0.358 | 5.67 | 2.020 | 74.8 | 25.94 | 7.37 | 0.358 | 5.78 | 4.020 | 75.3 |
| INE53 | 6/10/2011 | 26.09 | 7.27 | 0.360 | 4.87 | 0.114 | 72.1 | 25.82 | 7.24 | 0.360 | 4.66 | 1.000 | 72.1 | 25.80 | 7.24 | 0.361 | 4.57 | 3.910 | 72.0 |
| INE54 | 6/10/2011 | 25.95 | 7.23 | 0.361 | 4.44 | 0.111 | 70.0 | 25.88 | 7.23 | 0.361 | 4.46 | 1.836 | 70.1 | 25.89 | 7.26 | 0.362 | 4.84 | 3.655 | 72.4 |
| INE55 | 6/10/2011 | 26.16 | 7.33 | 0.358 | 5.59 | 0.109 | 73.9 | 26.10 | 7.32 | 0.360 | 5.35 | 2.242 | 74.1 | 26.10 | 7.32 | 0.358 | 5.64 | 2.189 | 73.7 |
| INE56 | 6/10/2011 | 26.14 | 7.32 | 0.360 | 5.43 | 0.078 | 74.7 | | | | | | | 26.10 | 7.36 | 0.359 | 5.79 | 4.530 | 74.3 |
| INE57 | 6/10/2011 | 25.89 | 7.35 | 0.374 | 4.62 | 0.130 | 32.2 | 25.87 | 7.36 | 0.374 | 4.86 | 1.612 | 54.3 | 25.87 | 7.37 | 0.374 | 5.65 | 3.238 | 75.4 |
| INE58 | 6/10/2011 | 26.01 | 7.43 | 0.374 | 4.99 | 0.137 | 39.2 | 25.90 | 7.43 | 0.374 | 5.10 | 2.363 | 45.9 | 25.89 | 7.44 | 0.374 | 5.30 | 4.731 | 58.8 |
| INE59 | 6/10/2011 | 25.84 | 7.31 | 0.375 | 3.99 | 0.135 | 20.8 | 25.82 | 7.31 | 0.375 | 4.08 | 2.270 | 20.9 | 25.80 | 7.32 | 0.375 | 4.29 | 4.459 | 23.8 |
| INE60 | 6/10/2011 | 26.61 | 7.19 | 0.375 | 2.92 | 0.186 | 15.8 | 26.16 | 7.18 | 0.374 | 3.02 | 2.027 | 15.9 | 26.14 | 7.20 | 0.375 | 3.67 | 4.041 | 15.6 |
| INE61 | 6/10/2011 | 26.19 | 7.35 | 0.375 | 4.14 | 0.159 | 25.7 | 26.01 | 7.35 | 0.375 | 4.13 | 1.688 | 41.7 | 26.00 | 7.35 | 0.375 | 4.15 | 3.476 | 57.1 |
| INE62 | 6/10/2011 | 26.12 | 7.36 | 0.375 | 4.46 | 0.140 | 26.4 | 25.94 | 7.29 | 0.375 | 4.13 | 2.129 | 24.0 | 25.92 | 7.29 | 0.375 | 4.28 | 4.118 | 26.7 |
| INE63 | 6/10/2011 | 26.18 | 7.18 | 0.376 | 2.75 | 0.137 | 17.0 | 25.86 | 7.17 | 0.375 | 2.77 | 1.679 | 16.9 | 25.80 | 7.18 | 0.375 | 2.87 | 3.503 | 17.5 |
| INE64 | 6/10/2011 | 26.00 | 7.37 | 0.357 | 6.21 | 0.123 | 88.3 | 25.92 | 7.35 | 0.357 | 5.82 | 2.168 | 74.0 | 25.92 | 7.37 | 0.357 | 6.00 | 4.303 | 74.3 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INE65 | 6/10/2011 | 26.04 | 7.36 | 0.358 | 5.72 | 0.091 | 75.3 | 25.96 | 7.35 | 0.358 | 5.66 | 2.134 | 75.5 | 25.93 | 7.35 | 0.358 | 5.65 | 4.378 | 76.5 |
| INE66 | 6/10/2011 | 26.02 | 7.23 | 0.362 | 4.55 | 0.102 | 69.4 | 25.84 | 7.23 | 0.362 | 4.47 | 1.992 | 69.6 | 25.82 | 7.24 | 0.361 | 4.68 | 3.954 | 71.5 |
| INE67 | 6/10/2011 | 26.48 | 7.23 | 0.376 | 4.06 | 0.149 | 15.7 | 26.37 | 7.24 | 0.376 | 3.99 | 1.777 | 17.5 | 26.36 | 7.25 | 0.376 | 4.46 | 3.717 | 18.3 |
| INE68 | 6/10/2011 | 25.96 | 7.42 | 0.373 | 4.63 | 0.138 | 31.2 | 25.91 | 7.42 | 0.373 | 4.64 | 2.136 | 35.1 | 25.90 | 7.42 | 0.373 | 4.66 | 4.842 | 38.0 |
| INE69 | 6/10/2011 | 25.73 | 7.28 | 0.375 | 3.50 | 0.145 | 21.1 | 25.73 | 7.28 | 0.375 | 3.50 | 2.724 | 22.1 | 25.76 | 7.30 | 0.375 | 3.65 | 5.436 | 27.7 |
| BC1 | 6/14/2011 | 27.04 | 7.19 | 0.374 | 3.11 | 0.136 | 39.2 | 26.89 | 7.20 | 0.374 | 3.12 | 2.144 | 27.8 | 26.91 | 7.15 | 0.374 | 3.23 | 4.201 | 1297.3 |
| BC108 | 6/14/2011 | 26.92 | 7.25 | 0.357 | 4.25 | 0.065 | 76.4 | | | | | | | | | | | | |
| BC109 | 6/14/2011 | 27.23 | 7.12 | 0.357 | 2.55 | 0.171 | 71.0 | 27.01 | 7.11 | 0.357 | 2.34 | 1.329 | 70.9 | 26.96 | 7.13 | 0.357 | 2.41 | 2.732 | 78.6 |
| BC11 | 6/14/2011 | 27.76 | 7.12 | 0.373 | 2.16 | 0.102 | 7.9 | 27.06 | 7.10 | 0.373 | 1.67 | 1.261 | 8.4 | 26.97 | 7.10 | 0.372 | 1.62 | 2.520 | 8.7 |
| BC2 | 6/14/2011 | 27.39 | 7.06 | 0.370 | 1.54 | 0.104 | 9.7 | 27.26 | 7.06 | 0.370 | 1.57 | 1.247 | 10.5 | 27.26 | 7.07 | 0.370 | 1.63 | 2.582 | 23.7 |
| BC27 | 6/14/2011 | 27.29 | 7.17 | 0.359 | 3.15 | 0.137 | 71.4 | 26.75 | 7.12 | 0.359 | 2.63 | 1.510 | 69.3 | 26.65 | 7.11 | 0.359 | 2.60 | 3.059 | 68.6 |
| BC32 | 6/14/2011 | 27.40 | 7.30 | 0.362 | 4.32 | 0.078 | 71.1 | 27.08 | 7.28 | 0.362 | 4.16 | 0.912 | 71.2 | 27.04 | 7.30 | 0.362 | 4.33 | 2.104 | 71.5 |
| BC40 | 6/14/2011 | 27.81 | 7.32 | 0.362 | 4.66 | 0.121 | 72.2 | 27.33 | 7.30 | 0.362 | 4.50 | 1.210 | 72.8 | 27.21 | 7.28 | 0.362 | 4.31 | 2.284 | 83.8 |
| BC41 | 6/14/2011 | 27.26 | 7.33 | 0.361 | 4.68 | 0.122 | 73.4 | 27.20 | 7.33 | 0.362 | 4.73 | 1.227 | 74.3 | 27.18 | 7.32 | 0.361 | 5.04 | 2.469 | 82.7 |
| BC42 | 6/14/2011 | 26.68 | 7.12 | 0.360 | 2.76 | 0.183 | 66.9 | 26.59 | 7.12 | 0.361 | 2.57 | 2.129 | 66.9 | 26.53 | 7.11 | 0.361 | 2.66 | 4.232 | 77.2 |
| BC51 | 6/14/2011 | 27.45 | 7.20 | 0.360 | 3.96 | 0.109 | 71.3 | 27.18 | 7.19 | 0.360 | 3.82 | 0.764 | 73.1 | 26.98 | 7.21 | 0.360 | 4.11 | 1.370 | 73.9 |
| BC52 | 6/14/2011 | 26.77 | 7.06 | 0.358 | 2.01 | 0.144 | 65.1 | 26.72 | 7.07 | 0.358 | 2.06 | 1.049 | 64.9 | 26.68 | 7.12 | 0.357 | 2.62 | 2.094 | 66.0 |
| BC53 | 6/14/2011 | 27.03 | 7.06 | 0.358 | 1.93 | 0.114 | 65.3 | 26.80 | 7.06 | 0.357 | 1.75 | 0.954 | 65.5 | 26.77 | 7.10 | 0.356 | 2.05 | 1.818 | 65.5 |
| BC6 | 6/14/2011 | 27.14 | 7.24 | 0.374 | 3.29 | 0.119 | 17.2 | 27.02 | 7.25 | 0.374 | 3.35 | 1.752 | 17.5 | 27.03 | 7.30 | 0.376 | 3.82 | 3.614 | 204.4 |
| BC66 | 6/14/2011 | 27.39 | 7.10 | 0.371 | 1.80 | 0.134 | 9.1 | 27.11 | 7.11 | 0.371 | 1.69 | 1.589 | 9.8 | 27.02 | 7.13 | 0.371 | 1.76 | 2.899 | 11.5 |
| BC67 | 6/14/2011 | 28.25 | 7.20 | 0.374 | 3.55 | 0.136 | 8.4 | 27.27 | 7.13 | 0.374 | 1.81 | 1.466 | 8.6 | 27.12 | 7.11 | 0.382 | 0.71 | 3.081 | 9.3 |
| BC68 | 6/14/2011 | 27.52 | 7.14 | 0.372 | 2.03 | 0.137 | 10.1 | 27.49 | 7.15 | 0.372 | 2.01 | 1.867 | 10.9 | 27.46 | 7.14 | 0.373 | 1.94 | 3.695 | 9.7 |
| BC69 | 6/14/2011 | 28.43 | 7.25 | 0.374 | 4.28 | 0.080 | 6.6 | 27.23 | 7.14 | 0.374 | 1.81 | 1.602 | 7.0 | 27.13 | 7.11 | 0.380 | 0.62 | 3.066 | 335.3 |
| BC70 | 6/14/2011 | 27.47 | 7.17 | 0.372 | 2.22 | 0.099 | 11.2 | 27.17 | 7.25 | 0.373 | 1.80 | 1.689 | 22.4 | 27.21 | 7.29 | 0.400 | 1.80 | 3.243 | 2.8 |
| BC72 | 6/14/2011 | 27.05 | 7.10 | 0.368 | 1.75 | 0.105 | 6.2 | 27.03 | 7.10 | 0.368 | 1.76 | 0.576 | 7.1 | 27.01 | 7.12 | 0.369 | 1.82 | 1.941 | 18.8 |
| BC75 | 6/14/2011 | 27.10 | 7.24 | 0.373 | 3.40 | 0.091 | 21.2 | 27.08 | 7.24 | 0.373 | 3.49 | 2.580 | 22.5 | 27.06 | 7.26 | 0.373 | 3.64 | 5.496 | 36.1 |
| BC80 | 6/14/2011 | 27.33 | 7.05 | 0.362 | 2.03 | 0.112 | 65.2 | 26.63 | 7.02 | 0.359 | 1.58 | 1.496 | 64.0 | 26.54 | 7.04 | 0.359 | 1.66 | 2.935 | 65.3 |
| BC85 | 6/14/2011 | 27.86 | 7.14 | 0.371 | 1.97 | 0.121 | 12.9 | 26.96 | 7.12 | 0.370 | 1.63 | 1.438 | 15.2 | 26.91 | 7.13 | 0.370 | 1.70 | 2.827 | 55.1 |
| BC86 | 6/14/2011 | 28.03 | 7.16 | 0.373 | 2.84 | 0.094 | 11.7 | 26.77 | 7.20 | 0.374 | 3.05 | 1.844 | 17.3 | 26.62 | 7.18 | 0.373 | 2.60 | 3.576 | 14.3 |
| BC90 | 6/14/2011 | 27.27 | 7.18 | 0.360 | 3.85 | 0.153 | 75.1 | 27.26 | 7.18 | 0.360 | 3.90 | 1.099 | 75.9 | 27.22 | 7.20 | 0.360 | 4.08 | 2.151 | 79.6 |
| BC998 | 6/14/2011 | 26.78 | 7.05 | 0.357 | 1.84 | 0.107 | 67.5 | 26.64 | 7.04 | 0.357 | 1.63 | 1.279 | 67.6 | 26.62 | 7.03 | 0.357 | 1.85 | 2.431 | 74.7 |
| BC999 | 6/14/2011 | 26.94 | 7.30 | 0.372 | 3.86 | 0.093 | 36.7 | 26.92 | 7.30 | 0.371 | 4.05 | 2.370 | 45.0 | 26.91 | 7.30 | 0.369 | 4.80 | 5.025 | 71.7 |
| BCS8 | 6/14/2011 | 27.63 | 7.17 | 0.373 | 3.20 | 0.094 | 12.3 | 26.92 | 7.20 | 0.373 | 3.09 | 1.958 | 25.9 | 26.85 | 7.20 | 0.373 | 3.09 | 4.151 | 63.3 |
| BC15 | 6/20/2011 | 28.73 | 7.19 | 0.395 | 1.72 | 0.092 | 5.8 | 28.42 | 7.21 | 0.395 | 1.77 | 1.803 | 6.9 | 28.19 | 7.21 | 0.396 | 1.29 | 3.611 | 8.1 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BC63 | 6/20/2011 | 28.16 | 7.59 | 0.426 | 5.46 | 0.084 | 21.6 | 28.15 | 7.59 | 0.426 | 5.42 | 0.789 | 23.6 | 28.13 | 7.60 | 0.426 | 5.45 | 1.583 | 24.3 |
| BC64 | 6/20/2011 | 28.38 | 7.61 | 0.427 | 5.75 | 0.093 | 22.7 | 28.15 | 7.58 | 0.426 | 5.43 | 1.634 | 24.2 | 28.10 | 7.60 | 0.428 | 5.64 | 3.237 | 53.6 |
| BC65 | 6/20/2011 | 28.72 | 7.23 | 0.399 | 2.34 | 0.096 | 8.2 | 28.42 | 7.21 | 0.399 | 2.09 | 2.178 | 9.7 | 28.41 | 7.22 | 0.398 | 2.20 | 4.263 | 33.7 |
| HN1 | 6/21/2011 | 26.88 | 7.10 | 0.338 | 2.56 | 0.110 | 1.3 | 24.92 | 6.71 | 0.363 | 0.42 | 2.335 | 17.4 | 24.08 | 6.65 | 0.399 | 0.57 | 4.654 | 37.3 |
| HN11 | 6/21/2011 | 29.05 | 7.24 | 0.469 | 0.40 | 0.099 | 7.4 | 29.05 | 7.25 | 0.468 | 0.54 | 1.681 | 8.1 | 28.97 | 7.25 | 0.469 | 0.69 | 3.406 | 132.7 |
| HN12 | 6/21/2011 | 29.19 | 7.19 | 0.453 | 0.35 | 0.123 | 5.4 | 28.62 | 7.11 | 0.440 | 0.38 | 2.158 | 6.0 | 26.22 | 7.03 | 0.393 | 0.51 | 4.306 | 5.0 |
| HN13 | 6/21/2011 | 28.88 | 7.18 | 0.443 | 0.42 | 0.088 | 5.5 | 27.47 | 7.08 | 0.416 | 0.55 | 1.623 | 5.7 | 26.85 | 7.08 | 0.406 | 0.76 | 3.201 | 7.5 |
| HN14 | 6/21/2011 | 26.55 | 7.03 | 0.395 | 0.35 | 0.110 | 11.5 | 26.16 | 7.01 | 0.394 | 0.41 | 0.901 | 15.6 | 25.56 | 7.00 | 0.400 | 0.64 | 1.792 | 48.4 |
| HN15 | 6/21/2011 | 27.74 | 7.06 | 0.389 | 0.36 | 0.126 | 6.2 | 26.72 | 7.00 | 0.381 | 0.36 | 1.677 | 9.1 | 24.11 | 6.89 | 0.374 | 0.48 | 3.277 | 34.6 |
| HN16 | 6/21/2011 | 27.03 | 7.10 | 0.396 | 0.42 | 0.115 | 7.1 | 27.02 | 7.11 | 0.397 | 0.49 | 3.113 | 8.6 | 27.02 | 7.12 | 0.397 | 0.71 | 6.320 | 11.5 |
| HN17 | 6/21/2011 | 26.77 | 7.15 | 0.361 | 1.89 | 0.105 | 2.1 | 24.77 | 6.76 | 0.385 | 0.38 | 1.824 | 18.8 | 23.88 | 6.71 | 0.395 | 0.61 | 3.624 | 27.8 |
| HN19 | 6/21/2011 | 26.52 | 7.03 | 0.345 | 2.05 | 0.106 | 3.6 | 24.39 | 6.67 | 0.391 | 0.54 | 2.529 | 20.9 | 23.91 | 6.65 | 0.409 | 1.14 | 5.048 | 54.9 |
| HN20 | 6/21/2011 | 26.69 | 7.02 | 0.339 | 2.53 | 0.097 | 3.6 | 24.38 | 6.68 | 0.357 | 0.42 | 3.122 | 21.1 | 21.27 | 6.60 | 0.511 | 0.59 | 6.232 | 72.0 |
| HN26 | 6/21/2011 | 28.32 | 7.04 | 0.331 | 0.93 | 0.133 | 62.3 | 28.08 | 6.94 | 0.333 | 0.31 | 2.051 | 63.1 | 26.21 | 6.78 | 0.354 | 0.04 | 4.154 | 65.6 |
| HN27 | 6/21/2011 | 28.22 | 7.04 | 0.330 | 0.91 | 0.126 | 62.7 | 25.33 | 6.78 | 0.341 | 0.02 | 4.090 | 64.3 | 21.32 | 6.90 | 0.416 | 0.31 | 8.218 | 93.5 |
| HN28 | 6/21/2011 | 27.46 | 6.84 | 0.319 | 0.35 | 0.128 | 61.8 | 25.83 | 6.66 | 0.326 | 0.05 | 2.161 | 62.6 | 20.58 | 6.57 | 0.351 | 0.20 | 4.190 | 61.9 |
| HN30 | 6/21/2011 | 28.09 | 6.93 | 0.323 | 0.51 | 0.160 | 62.4 | 26.18 | 6.70 | 0.325 | 0.08 | 1.318 | 67.5 | 24.28 | 6.68 | 0.338 | 0.23 | 3.135 | 67.2 |
| HN31 | 6/21/2011 | 28.22 | 6.97 | 0.345 | 0.06 | 0.118 | 63.4 | 28.15 | 6.94 | 0.347 | 0.09 | 1.072 | 63.8 | 28.12 | 6.94 | 0.352 | 0.24 | 2.271 | 64.2 |
| HN32 | 6/21/2011 | 27.93 | 7.14 | 0.340 | 0.97 | 0.097 | 61.9 | 26.91 | 6.85 | 0.361 | 0.00 | 1.506 | 62.3 | 21.00 | 6.63 | 0.485 | 0.12 | 3.212 | 61.1 |
| HN33 | 6/21/2011 | 26.32 | 6.81 | 0.350 | 0.14 | 0.160 | 63.3 | 26.16 | 6.85 | 0.355 | 0.16 | 2.113 | 63.0 | 25.62 | 6.78 | 0.350 | 0.10 | 4.033 | 64.2 |
| HN35 | 6/21/2011 | 27.57 | 7.00 | 0.349 | 0.84 | 0.086 | 62.7 | 22.37 | 6.50 | 0.397 | 0.03 | 2.565 | 69.9 | 20.19 | 6.71 | 0.403 | 0.15 | 5.186 | 64.8 |
| HN36 | 6/21/2011 | 27.62 | 6.94 | 0.342 | 0.45 | 0.115 | 62.4 | 23.83 | 6.68 | 0.360 | 0.04 | 1.716 | 64.5 | 21.52 | 6.53 | 0.401 | 0.17 | 3.390 | 66.8 |
| HN37 | 6/21/2011 | 27.82 | 7.00 | 0.335 | 0.50 | 0.175 | 62.8 | 25.43 | 6.79 | 0.354 | 0.04 | 2.711 | 63.6 | 22.42 | 6.75 | 0.369 | 0.19 | 5.635 | 63.2 |
| HN38 | 6/21/2011 | 27.78 | 7.06 | 0.341 | 0.71 | 0.165 | 62.0 | 21.94 | 6.56 | 0.393 | 0.10 | 2.642 | 65.0 | 20.51 | 6.69 | 0.391 | 0.38 | 3.866 | 65.8 |
| HN39 | 6/21/2011 | 27.49 | 7.12 | 0.370 | 0.69 | 0.092 | 62.1 | 23.36 | 6.68 | 0.375 | 0.02 | 2.077 | 67.2 | 19.26 | 6.51 | 0.507 | 0.19 | 4.035 | 66.1 |
| HN40 | 6/21/2011 | 27.43 | 6.99 | 0.350 | 0.59 | 0.216 | 62.8 | 26.58 | 6.89 | 0.350 | 0.22 | 1.350 | 63.3 | 26.51 | 6.89 | 0.349 | 0.18 | 2.884 | 63.2 |
| HN41 | 6/21/2011 | 26.55 | 6.88 | 0.342 | 0.07 | 0.206 | 64.4 | 26.52 | 6.88 | 0.344 | 0.03 | 1.699 | 64.1 | 26.49 | 6.88 | 0.344 | 0.04 | 3.650 | 64.6 |
| HN42 | 6/21/2011 | 27.74 | 7.05 | 0.328 | 0.95 | 0.108 | 63.1 | 27.66 | 6.97 | 0.330 | 0.48 | 1.530 | 63.2 | 25.08 | 6.73 | 0.347 | 0.15 | 3.049 | 64.2 |
| HN43 | 6/21/2011 | 27.79 | 7.03 | 0.326 | 0.05 | 0.128 | 63.0 | 24.95 | 7.03 | 0.413 | 0.02 | 3.088 | 62.4 | 20.47 | 6.99 | 0.387 | 0.23 | 6.025 | 64.6 |
| HN44 | 6/21/2011 | 27.81 | 7.06 | 0.334 | 0.85 | 0.188 | 62.4 | 27.76 | 7.02 | 0.336 | 0.39 | 2.103 | 63.0 | 20.92 | 6.76 | 0.367 | 0.09 | 4.062 | 63.4 |
| HN5 | 6/21/2011 | 29.58 | 7.54 | 0.373 | 6.56 | 0.111 | 8.2 | 27.58 | 7.21 | 0.388 | 3.49 | 3.033 | 17.7 | 21.01 | 7.00 | 0.482 | 0.54 | 6.096 | 54.7 |
| INE51 | 6/28/2011 | 27.54 | 7.62 | 0.494 | 5.91 | 0.094 | 102.0 | 27.53 | 7.62 | 0.494 | 5.94 | 1.313 | 105.0 | 27.53 | 7.63 | 0.494 | 6.00 | 2.616 | 108.9 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INE52 | 6/28/2011 | 28.07 | 7.55 | 0.489 | 5.43 | 0.105 | 89.4 | 27.52 | 7.53 | 0.488 | 5.38 | 1.493 | 91.3 | 27.52 | 7.51 | 0.489 | 5.40 | 2.987 | 100.2 |
| INE53 | 6/28/2011 | 30.82 | 8.12 | 0.469 | 8.82 | 0.120 | 70.4 | 28.30 | 7.48 | 0.478 | 4.69 | 1.305 | 75.2 | 27.62 | 7.42 | 0.476 | 3.74 | 2.572 | 191.3 |
| INE54 | 6/28/2011 | 29.41 | 7.35 | 0.442 | 5.10 | 0.108 | 67.7 | 28.69 | 7.14 | 0.423 | 3.00 | 1.047 | 65.1 | 27.92 | 7.10 | 0.415 | 1.69 | 2.188 | 70.3 |
| INE55 | 6/28/2011 | 30.13 | 7.65 | 0.470 | 6.61 | 0.099 | 70.3 | 28.81 | 7.36 | 0.463 | 4.36 | 1.551 | 71.3 | 28.40 | 7.26 | 0.456 | 3.27 | 2.978 | 72.1 |
| INE56 | 6/28/2011 | 29.64 | 7.48 | 0.447 | 6.60 | 0.095 | 68.4 | 28.48 | 7.26 | 0.438 | 4.10 | 1.592 | 69.0 | 28.07 | 7.23 | 0.428 | 3.01 | 3.149 | 102.8 |
| INE57 | 6/28/2011 | 29.84 | 7.80 | 0.472 | 8.56 | 0.104 | 16.5 | | | | | | | 29.58 | 7.72 | 0.466 | 8.12 | 1.117 | 15.7 |
| INE58 | 6/28/2011 | 29.59 | 7.80 | 0.467 | 9.10 | 0.195 | 15.6 | 28.55 | 7.54 | 0.472 | 5.18 | 1.554 | 21.2 | 28.39 | 7.51 | 0.469 | 4.88 | 3.121 | 29.5 |
| INE59 | 6/28/2011 | 29.38 | 7.38 | 0.435 | 4.98 | 0.166 | 8.7 | 28.29 | 7.33 | 0.432 | 3.36 | 1.510 | 16.2 | 28.11 | 7.36 | 0.455 | 3.43 | 2.986 | 58.1 |
| INE6 | 6/28/2011 | 28.02 | 7.55 | 0.485 | 4.85 | 0.127 | 80.6 | 27.97 | 7.54 | 0.485 | 4.72 | 2.381 | 81.0 | 27.49 | 7.54 | 0.486 | 4.86 | 5.246 | 84.6 |
| INE60 | 6/28/2011 | 29.86 | 7.52 | 0.474 | 5.18 | 0.147 | 12.0 | 28.64 | 7.55 | 0.492 | 4.71 | 1.429 | 27.8 | 28.52 | 7.58 | 0.494 | 4.68 | 2.721 | 43.0 |
| INE61 | 6/28/2011 | 30.33 | 7.52 | 0.439 | 7.24 | 0.114 | 8.3 | 28.68 | 7.39 | 0.438 | 4.57 | 1.149 | 12.9 | 28.64 | 7.41 | 0.439 | 4.46 | 2.196 | 16.9 |
| INE62 | 6/28/2011 | 30.30 | 7.33 | 0.431 | 4.44 | 0.172 | 8.8 | 28.54 | 7.19 | 0.418 | 1.35 | 1.520 | 3.2 | 28.38 | 7.19 | 0.416 | 0.94 | 3.011 | 9.1 |
| INE63 | 6/28/2011 | 29.93 | 7.38 | 0.439 | 5.21 | 0.145 | 8.7 | 28.84 | 7.20 | 0.409 | 1.93 | 1.093 | 1.9 | 28.57 | 7.22 | 0.409 | 1.87 | 2.030 | 9.9 |
| INE64 | 6/28/2011 | 27.47 | 7.63 | 0.494 | 5.86 | 0.097 | 103.3 | | | | | | | | | | | | |
| INE65 | 6/28/2011 | 28.10 | 7.51 | 0.487 | 4.99 | 0.099 | 76.5 | 27.79 | 7.49 | 0.486 | 4.95 | 1.532 | 79.6 | 27.74 | 7.52 | 0.487 | 5.03 | 2.997 | 106.7 |
| INE66 | 6/28/2011 | 28.96 | 7.30 | 0.441 | 5.09 | 0.080 | 66.9 | 28.35 | 7.15 | 0.436 | 3.18 | 1.312 | 66.4 | 28.00 | 7.15 | 0.432 | 2.45 | 2.752 | 78.4 |
| INE67 | 6/28/2011 | 30.31 | 8.29 | 0.481 | 12.42 | 0.141 | 10.1 | 28.82 | 8.17 | 0.488 | 11.01 | 1.172 | 17.7 | 27.32 | 7.83 | 0.509 | 7.17 | 2.588 | 55.2 |
| INE68 | 6/28/2011 | 29.74 | 7.77 | 0.470 | 8.17 | 0.135 | 16.3 | 28.72 | 7.60 | 0.468 | 6.24 | 1.605 | 21.2 | 28.47 | 7.60 | 0.470 | 5.73 | 3.269 | 26.5 |
| INE69 | 6/28/2011 | 29.04 | 7.29 | 0.431 | 3.59 | 0.169 | 4.9 | 28.63 | 7.25 | 0.430 | 2.38 | 1.533 | 6.0 | 28.28 | 7.28 | 0.440 | 2.72 | 3.062 | 19.3 |
| BC1 | 6/29/2011 | 27.91 | 7.52 | 0.462 | 5.02 | 0.177 | 53.5 | 27.85 | 7.53 | 0.462 | 4.99 | 1.651 | 59.7 | 27.85 | 7.54 | 0.462 | 4.72 | 2.798 | 58.1 |
| BC108 | 6/29/2011 | 27.90 | 7.30 | 0.428 | 4.17 | 0.133 | 84.6 | | | | | | | | | | | | |
| BC109 | 6/29/2011 | 28.32 | 7.07 | 0.455 | 1.34 | 0.095 | 63.4 | 28.15 | 7.07 | 0.455 | 1.29 | 0.993 | 67.4 | 28.08 | 7.07 | 0.455 | 1.32 | 1.935 | 81.8 |
| BC11 | 6/29/2011 | 29.62 | 7.29 | 0.465 | 2.33 | 0.133 | 4.5 | 29.11 | 7.30 | 0.464 | 2.07 | 1.017 | 6.0 | 28.99 | 7.35 | 0.465 | 2.67 | 2.051 | 241.6 |
| BC15 | 6/29/2011 | 28.11 | 7.28 | 0.466 | 1.17 | 0.154 | 1.6 | 27.93 | 7.29 | 0.464 | 1.26 | 0.716 | 3.3 | 27.85 | 7.32 | 0.463 | 1.54 | 1.489 | 15.0 |
| BC2 | 6/29/2011 | 29.03 | 7.18 | 0.436 | 0.91 | 0.131 | 1.0 | 29.03 | 7.20 | 0.436 | 1.01 | 0.721 | 5.0 | 29.02 | 7.23 | 0.436 | 1.32 | 1.416 | 55.2 |
| BC27 | 6/29/2011 | 28.59 | 7.07 | 0.414 | 1.55 | 0.099 | 64.3 | 28.38 | 7.05 | 0.413 | 1.52 | 1.105 | 64.1 | 28.22 | 7.00 | 0.417 | 1.54 | 2.207 | 97.2 |
| BC32 | 6/29/2011 | 27.76 | 7.45 | 0.482 | 4.83 | 0.109 | 69.6 | 27.62 | 7.45 | 0.485 | 4.76 | 0.492 | 71.1 | 27.55 | 7.49 | 0.485 | 4.69 | 0.949 | 74.2 |
| BC40 | 6/29/2011 | 28.27 | 7.44 | 0.490 | 5.04 | 0.106 | 71.9 | 27.81 | 7.43 | 0.489 | 4.87 | 0.698 | 73.9 | 27.76 | 7.40 | 0.490 | 4.54 | 1.450 | 105.6 |
| BC41 | 6/29/2011 | 27.73 | 7.27 | 0.466 | 3.13 | 0.098 | 65.9 | 27.67 | 7.26 | 0.467 | 3.06 | 0.742 | 67.7 | 27.70 | 7.23 | 0.466 | 2.97 | 1.428 | 81.4 |
| BC42 | 6/29/2011 | 28.69 | 7.21 | 0.434 | 3.36 | 0.116 | 63.8 | 28.18 | 7.16 | 0.438 | 1.90 | 1.696 | 64.6 | 27.31 | 7.02 | 0.443 | 0.56 | 3.409 | 90.7 |
| BC51 | 6/29/2011 | 28.70 | 7.44 | 0.457 | 5.53 | 0.103 | 93.2 | | | | | | | 28.63 | 7.46 | 0.456 | 5.47 | 0.532 | 165.7 |
| BC53 | 6/29/2011 | 27.78 | 7.23 | 0.451 | 3.69 | 0.098 | 69.8 | 27.68 | 7.22 | 0.451 | 3.65 | 0.534 | 70.7 | 27.79 | 7.27 | 0.451 | 3.39 | 1.150 | 81.0 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BC6 | 6/29/2011 | 28.67 | 7.27 | 0.440 | 1.78 | 0.126 | 3.2 | 28.33 | 7.27 | 0.440 | 1.73 | 0.874 | 4.4 | 28.31 | 7.30 | 0.440 | 1.88 | 1.662 | 12.6 |
| BC64 | 6/29/2011 | 28.56 | 7.29 | 0.459 | 1.82 | 0.125 | 3.4 | 28.31 | 7.30 | 0.458 | 1.87 | 1.039 | 7.3 | 28.28 | 7.31 | 0.457 | 1.97 | 2.062 | 17.8 |
| BC65 | 6/29/2011 | 28.25 | 7.29 | 0.462 | 1.40 | 0.138 | 1.4 | 28.16 | 7.32 | 0.463 | 1.44 | 1.728 | 2.5 | 28.02 | 7.36 | 0.464 | 1.77 | 3.510 | 5.8 |
| BC66 | 6/29/2011 | 28.53 | 7.18 | 0.426 | 1.67 | 0.174 | -0.5 | 28.20 | 7.19 | 0.425 | 1.85 | 0.721 | -0.4 | 28.15 | 7.28 | 0.425 | 3.02 | 1.537 | 3.0 |
| BC67 | 6/29/2011 | 29.29 | 7.30 | 0.449 | 2.35 | 0.137 | 1.5 | 29.12 | 7.28 | 0.450 | 1.61 | 0.817 | 4.1 | 28.58 | 7.26 | 0.455 | 1.13 | 1.620 | 29.3 |
| BC68 | 6/29/2011 | 28.97 | 7.24 | 0.433 | 1.97 | 0.153 | 1.6 | 28.92 | 7.25 | 0.432 | 1.95 | 1.143 | 0.8 | 28.88 | 7.28 | 0.433 | 2.15 | 2.369 | 6.9 |
| BC69 | 6/29/2011 | 29.30 | 7.34 | 0.445 | 3.29 | 0.111 | 0.7 | 29.24 | 7.33 | 0.445 | 2.68 | 0.835 | 3.1 | 28.87 | 7.31 | 0.447 | 1.84 | 1.776 | 21.5 |
| BC70 | 6/29/2011 | 28.98 | 7.21 | 0.453 | 0.78 | 0.127 | 0.6 | 28.90 | 7.21 | 0.454 | 0.77 | 0.838 | 0.6 | 28.89 | 7.22 | 0.454 | 0.82 | 1.624 | 1.1 |
| BC72 | 6/29/2011 | 28.52 | 7.36 | 0.444 | 2.90 | 0.141 | 13.6 | 28.48 | 7.37 | 0.445 | 2.92 | 0.760 | 14.5 | 28.34 | 7.41 | 0.452 | 3.10 | 1.484 | 25.0 |
| BC75 | 6/29/2011 | 27.74 | 7.52 | 0.461 | 5.11 | 0.152 | 58.4 | 27.72 | 7.52 | 0.461 | 5.10 | 1.402 | 66.8 | 27.71 | 7.55 | 0.461 | 5.17 | 2.745 | 69.6 |
| BC8 | 6/29/2011 | 29.74 | 7.26 | 0.445 | 2.27 | 0.096 | 2.1 | 28.44 | 7.25 | 0.441 | 1.54 | 1.567 | 2.8 | 28.19 | 7.28 | 0.440 | 1.69 | 3.060 | 7.0 |
| BC80 | 6/29/2011 | 28.82 | 7.29 | 0.462 | 4.87 | 0.099 | 68.5 | 27.69 | 7.17 | 0.456 | 2.72 | 0.966 | 70.0 | 27.13 | 7.01 | 0.426 | 0.59 | 1.955 | 237.9 |
| BC85 | 6/29/2011 | 30.66 | 7.23 | 0.467 | 2.06 | 0.147 | 3.4 | 29.29 | 7.22 | 0.464 | 1.51 | 0.809 | 2.9 | 29.10 | 7.24 | 0.466 | 1.35 | 1.675 | 11.9 |
| BC86 | 6/29/2011 | 29.56 | 7.22 | 0.433 | 1.34 | 0.114 | 0.4 | 27.80 | 7.25 | 0.440 | 1.60 | 1.343 | 1.2 | 27.69 | 7.29 | 0.441 | 1.92 | 2.505 | 0.9 |
| BC90 | 6/29/2011 | 28.55 | 7.38 | 0.463 | 5.52 | 0.107 | 93.3 | 28.34 | 7.38 | 0.462 | 5.51 | 0.561 | 96.0 | 28.34 | 7.38 | 0.463 | 5.55 | 1.160 | 95.8 |
| BC998 | 6/29/2011 | 28.49 | 7.10 | 0.467 | 1.53 | 0.101 | 64.2 | 28.28 | 7.09 | 0.466 | 1.31 | 0.658 | 64.1 | 27.99 | 7.08 | 0.467 | 1.13 | 1.351 | 74.8 |
| BC999 | 6/29/2011 | 29.60 | 7.86 | 0.401 | 11.86 | 0.185 | 6.3 | 27.97 | 7.42 | 0.428 | 2.60 | 2.551 | 17.6 | 27.03 | 7.39 | 0.415 | 0.72 | 5.061 | 27.4 |
| HN1 | 7/6/2011 | 27.10 | 7.13 | 0.377 | 0.48 | 0.159 | 2.3 | 26.93 | 7.15 | 0.377 | 0.61 | 2.067 | 3.3 | 26.89 | 7.20 | 0.376 | 1.21 | 4.005 | 3.5 |
| HN11 | 7/6/2011 | 30.96 | 7.55 | 0.483 | 5.62 | 0.143 | 9.2 | 30.44 | 7.40 | 0.483 | 3.39 | 1.253 | 9.0 | 29.02 | 7.26 | 0.432 | 2.22 | 2.350 | 13.1 |
| HN12 | 7/6/2011 | 32.10 | 7.54 | 0.476 | 0.61 | 0.188 | 7.7 | 28.80 | 7.14 | 0.382 | 0.66 | 1.632 | 6.5 | 28.08 | 7.15 | 0.382 | 1.27 | 3.227 | 8.8 |
| HN15 | 7/6/2011 | 30.16 | 8.54 | 0.417 | 12.00 | 0.148 | 7.3 | 29.73 | 8.28 | 0.421 | 9.64 | 1.068 | 7.9 | 28.73 | 7.33 | 0.411 | 3.74 | 2.110 | 29.6 |
| HN16 | 7/6/2011 | 28.95 | 7.37 | 0.421 | 3.40 | 0.140 | 8.8 | 28.90 | 7.36 | 0.421 | 3.27 | 2.076 | 9.9 | 28.88 | 7.37 | 0.421 | 3.29 | 3.836 | 13.8 |
| HN17 | 7/6/2011 | 27.93 | 7.22 | 0.412 | 1.62 | 0.149 | 2.4 | 27.11 | 7.18 | 0.401 | 1.25 | 1.001 | 1.4 | 26.48 | 7.18 | 0.385 | 1.16 | 2.310 | 1.0 |
| HN19 | 7/6/2011 | 26.99 | 7.09 | 0.372 | 0.41 | 0.150 | 2.6 | 26.72 | 7.07 | 0.370 | 0.47 | 2.065 | 3.3 | 26.16 | 7.02 | 0.358 | 0.85 | 4.007 | 6.1 |
| HN20 | 7/6/2011 | 27.78 | 7.08 | 0.367 | 0.54 | 0.131 | 2.4 | 26.93 | 7.09 | 0.361 | 0.56 | 2.032 | 2.3 | 26.91 | 7.14 | 0.363 | 1.00 | 4.082 | 2.3 |
| HN24 | 7/6/2011 | 28.55 | 6.96 | 0.298 | 0.95 | 0.139 | 0.3 | 27.39 | 6.91 | 0.307 | 0.75 | 0.721 | 0.0 | 26.49 | 6.84 | 0.355 | 1.17 | 1.481 | 7.2 |
| HN26 | 7/6/2011 | 28.91 | 6.99 | 0.301 | 0.97 | 0.133 | 1.1 | 26.77 | 6.85 | 0.331 | 0.49 | 2.242 | 3.5 | 23.73 | 6.77 | 0.340 | 1.55 | 4.447 | 29.5 |
| HN27 | 7/6/2011 | 29.27 | 6.95 | 0.301 | 0.91 | 0.103 | 1.7 | 26.42 | 6.79 | 0.310 | 0.24 | 3.265 | 5.6 | 21.95 | 6.75 | 0.353 | 0.53 | 6.485 | 11.4 |
| HN28 | 7/6/2011 | 28.08 | 6.72 | 0.285 | 0.40 | 0.162 | 5.4 | 26.33 | 6.59 | 0.287 | 0.42 | 1.496 | 7.5 | 22.86 | 6.51 | 0.314 | 1.31 | 3.047 | 9.0 |
| HN30 | 7/6/2011 | 30.53 | 6.86 | 0.284 | 1.68 | 0.121 | 0.9 | 26.94 | 6.64 | 0.291 | 0.54 | 1.184 | 1.2 | 25.54 | 6.60 | 0.296 | 1.90 | 2.349 | 6.7 |
| HN31 | 7/6/2011 | 28.61 | 6.88 | 0.319 | 0.57 | 0.140 | 6.6 | 28.53 | 6.89 | 0.319 | 0.64 | 0.547 | 6.4 | 28.26 | 6.92 | 0.318 | 1.33 | 1.166 | 7.4 |
| HN42 | 7/6/2011 | 30.48 | 6.92 | 0.298 | 1.59 | 0.113 | 1.8 | 28.03 | 6.72 | 0.301 | 0.46 | 1.170 | 10.5 | 26.35 | 6.64 | 0.295 | 1.24 | 2.512 | 10.2 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HN5 | 7/6/2011 | 28.75 | 7.86 | 0.448 | 7.56 | 0.157 | 15.1 | 28.13 | 7.46 | 0.452 | 4.02 | 2.591 | 17.7 | 24.66 | 6.98 | 0.447 | 2.00 | 5.169 | 23.4 |
| HN13 | 7/7/2011 | 28.64 | 7.30 | 0.402 | 2.76 | 0.111 | 5.5 | 27.91 | 7.14 | 0.373 | 0.67 | 1.437 | 20.8 | 27.79 | 7.13 | 0.372 | 0.81 | 2.823 | 23.9 |
| HN14 | 7/7/2011 | 27.86 | 7.31 | 0.381 | 3.04 | 0.101 | 9.6 | | | | | | | 27.72 | 7.33 | 0.381 | 3.06 | 0.926 | 13.7 |
| HN33 | 7/7/2011 | 27.24 | 6.84 | 0.304 | 0.31 | 0.181 | 4.3 | 27.12 | 6.84 | 0.305 | 0.38 | 1.112 | 4.7 | 26.86 | 6.85 | 0.307 | 0.69 | 2.247 | 6.6 |
| HN36 | 7/7/2011 | 27.40 | 6.85 | 0.307 | 0.51 | 0.108 | 1.7 | 26.92 | 6.79 | 0.311 | 0.55 | 1.029 | 1.7 | 24.93 | 6.54 | 0.347 | 0.94 | 2.150 | 13.0 |
| HN37 | 7/7/2011 | 27.52 | 6.91 | 0.295 | 0.76 | 0.188 | 2.2 | 26.74 | 6.78 | 0.300 | 0.67 | 2.198 | 5.9 | 25.12 | 6.59 | 0.337 | 1.01 | 4.424 | 16.1 |
| HN39 | 7/7/2011 | 26.91 | 6.90 | 0.321 | 0.35 | 0.155 | 2.9 | 26.52 | 6.78 | 0.322 | 0.34 | 1.143 | 2.5 | 22.27 | 6.35 | 0.385 | 0.79 | 2.378 | 13.3 |
| HN40 | 7/7/2011 | 27.22 | 6.90 | 0.303 | 0.34 | 0.136 | 5.0 | 27.14 | 6.91 | 0.302 | 0.36 | 1.881 | 5.5 | 27.13 | 6.95 | 0.302 | 0.59 | 3.667 | 5.5 |
| HN41 | 7/7/2011 | 27.81 | 6.89 | 0.296 | 0.36 | 0.153 | 5.0 | 27.73 | 6.90 | 0.296 | 0.36 | 1.375 | 5.2 | 27.72 | 6.93 | 0.295 | 0.49 | 2.604 | 7.0 |
| INA6 | 7/13/2011 | 28.20 | 7.51 | 0.413 | 4.23 | 0.146 | 53.6 | 28.05 | 7.44 | 0.421 | 3.77 | 0.713 | 42.2 | 28.16 | 7.52 | 0.413 | 4.61 | 1.275 | 58.0 |
| INE51 | 7/13/2011 | 28.37 | 7.80 | 0.406 | 6.40 | 0.117 | 90.6 | | | | | | | 28.33 | 7.81 | 0.406 | 6.34 | 0.516 | 97.5 |
| INE52 | 7/13/2011 | 29.82 | 7.81 | 0.407 | 6.30 | 0.170 | 50.0 | | | | | | | 28.25 | 7.77 | 0.406 | 5.98 | 0.775 | 57.0 |
| INE53 | 7/13/2011 | 29.79 | 8.09 | 0.414 | 8.49 | 0.139 | 25.4 | 29.42 | 7.98 | 0.413 | 7.79 | 0.265 | 25.9 | 28.31 | 7.66 | 0.414 | 5.11 | 0.611 | 39.2 |
| INE54 | 7/13/2011 | 29.55 | 7.46 | 0.422 | 5.42 | 0.100 | 10.6 | 29.42 | 7.44 | 0.423 | 4.74 | 0.250 | 10.5 | 28.57 | 7.41 | 0.426 | 2.83 | 0.572 | 6.8 |
| INE55 | 7/13/2011 | 30.18 | 8.16 | 0.414 | 9.33 | 0.108 | 18.4 | 29.84 | 7.82 | 0.415 | 7.65 | 0.339 | 18.1 | 29.23 | 7.56 | 0.414 | 5.53 | 0.704 | 21.1 |
| INE56 | 7/13/2011 | 30.02 | 7.73 | 0.420 | 8.29 | 0.156 | 11.5 | 28.87 | 7.50 | 0.421 | 4.96 | 0.487 | 13.9 | 28.69 | 7.54 | 0.422 | 4.19 | 0.829 | 20.7 |
| INE57 | 7/13/2011 | 30.01 | 7.92 | 0.451 | 7.74 | 0.132 | 12.3 | 29.65 | 7.61 | 0.451 | 6.65 | 1.074 | 11.8 | 28.58 | 7.13 | 0.448 | 1.68 | 2.121 | 3.3 |
| INE58 | 7/13/2011 | 29.91 | 8.00 | 0.455 | 8.03 | 0.098 | 9.8 | 29.39 | 7.76 | 0.455 | 6.67 | 1.007 | 13.0 | 29.10 | 7.78 | 0.456 | 6.29 | 2.031 | 16.9 |
| INE59 | 7/13/2011 | 30.03 | 7.90 | 0.456 | 7.84 | 0.104 | 7.6 | 29.32 | 7.57 | 0.458 | 6.21 | 1.079 | 10.7 | 28.63 | 7.37 | 0.459 | 3.39 | 2.158 | 26.6 |
| INE60 | 7/13/2011 | 29.80 | 7.56 | 0.452 | 4.24 | 0.104 | 29.3 | 28.74 | 7.57 | 0.450 | 3.98 | 1.369 | 41.2 | 28.74 | 7.64 | 0.451 | 3.98 | 2.700 | 78.3 |
| INE61 | 7/13/2011 | 30.69 | 7.79 | 0.456 | 7.49 | 0.107 | 7.3 | 29.85 | 7.65 | 0.455 | 7.02 | 1.112 | 9.5 | 29.41 | 7.49 | 0.457 | 5.85 | 2.216 | 1264.0 |
| INE62 | 7/13/2011 | 30.47 | 7.60 | 0.448 | 6.62 | 0.101 | 10.5 | 29.39 | 7.47 | 0.448 | 5.57 | 0.922 | 13.0 | 29.14 | 7.29 | 0.451 | 3.05 | 1.789 | 9.7 |
| INE63 | 7/13/2011 | 29.88 | 7.52 | 0.449 | 6.16 | 0.109 | 9.0 | 29.71 | 7.50 | 0.450 | 5.85 | 0.762 | 10.5 | 29.47 | 7.53 | 0.454 | 4.47 | 1.556 | 21.8 |
| INE64 | 7/13/2011 | 28.33 | 7.82 | 0.404 | 6.33 | 0.106 | 100.4 | 28.32 | 7.81 | 0.404 | 6.34 | 0.563 | 99.8 | 28.32 | 7.81 | 0.404 | 6.36 | 1.102 | 102.3 |
| INE65 | 7/13/2011 | 29.88 | 7.52 | 0.421 | 4.55 | 0.157 | 20.4 | | | | | | | 28.25 | 7.61 | 0.409 | 4.90 | 0.798 | 54.7 |
| INE66 | 7/13/2011 | 29.83 | 7.81 | 0.418 | 7.59 | 0.129 | 14.8 | 29.20 | 7.46 | 0.421 | 5.54 | 0.314 | 11.9 | 28.60 | 7.43 | 0.424 | 3.72 | 0.600 | 8.1 |
| INE67 | 7/13/2011 | 31.47 | 8.42 | 0.449 | 7.89 | 0.099 | 10.4 | 29.90 | 8.19 | 0.448 | 6.90 | 0.987 | 14.6 | 28.30 | 7.77 | 0.443 | 4.70 | 2.095 | 72.6 |
| INE68 | 7/13/2011 | 29.83 | 7.91 | 0.451 | 7.94 | 0.102 | 11.1 | 29.48 | 7.57 | 0.451 | 6.44 | 1.261 | 13.6 | 29.22 | 7.53 | 0.451 | 5.80 | 2.489 | 23.4 |
| INE69 | 7/13/2011 | 28.90 | 7.16 | 0.457 | 2.94 | 0.103 | 1.7 | 28.85 | 7.17 | 0.457 | 3.07 | 1.694 | 1.6 | 28.77 | 7.25 | 0.458 | 3.61 | 3.315 | 8.1 |
| ROV1 | 7/13/2011 | 28.35 | 7.81 | 0.405 | 6.27 | 0.102 | 103.0 | 28.34 | 7.80 | 0.405 | 6.27 | 0.525 | 104.1 | 28.34 | 7.82 | 0.406 | 6.30 | 1.039 | 105.8 |
| ROV2 | 7/13/2011 | 28.71 | 7.82 | 0.407 | 6.66 | 0.149 | 97.7 | | | | | | | 28.70 | 7.82 | 0.406 | 6.46 | 0.431 | 94.1 |
| ROV3 | 7/13/2011 | 28.40 | 7.23 | 0.424 | 2.50 | 0.123 | 8.4 | 28.37 | 7.27 | 0.424 | 2.49 | 0.183 | 8.9 | 28.36 | 7.34 | 0.424 | 2.70 | 0.393 | 16.6 |

| Identifier | Date | Top Temp ( C) | Top pH (su) | Top EC (mS/ cm) | Top DO (mg/L) | Top Depth (m) | Top Turb (NTU) | Mid Temp ( C) | Mid pH (su) | Mid EC (mS/ cm) | Mid DO (mg/L) | Mid Depth (m) | Mid Turb (NTU) | Bot Temp ( C) | Bot pH (su) | Bot EC (mS/ cm) | Bot DO (mg/L) | Bot Depth (m) | Bot Turb (NTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ROV4 | 7/13/2011 | 30.29 | 7.94 | 0.456 | 8.65 | 0.119 | 8.4 | 29.23 | 7.65 | 0.457 | 7.17 | 1.242 | 13.8 | 29.00 | 7.52 | 0.459 | 5.51 | 2.534 | 23.6 |
| ROV5 | 7/13/2011 | 30.25 | 7.15 | 0.432 | 2.85 | 0.101 | 2.5 | 29.18 | 7.13 | 0.436 | 2.21 | 0.997 | 2.7 | 28.66 | 7.09 | 0.428 | 1.63 | 1.921 | 7.4 |
| BC1 | 7/14/2011 | 28.78 | 7.61 | 0.422 | 4.60 | 0.089 | 74.6 | 28.75 | 7.67 | 0.422 | 4.81 | 1.577 | 81.1 | 28.75 | 7.70 | 0.422 | 4.93 | 3.090 | 79.8 |
| BC15 | 7/14/2011 | 28.79 | 7.18 | 0.444 | 1.72 | 0.124 | -0.3 | 28.38 | 7.19 | 0.443 | 1.80 | 1.229 | -0.3 | 28.34 | 7.26 | 0.444 | 2.10 | 2.503 | 1.8 |
| BC6 | 7/14/2011 | 28.93 | 7.22 | 0.437 | 2.32 | 0.163 | 2.4 | 28.86 | 7.27 | 0.437 | 2.47 | 1.140 | 3.9 | 28.81 | 7.36 | 0.436 | 2.77 | 2.069 | 12.5 |
| BC63 | 7/14/2011 | 27.50 | 7.36 | 0.464 | 3.87 | 0.147 | 17.2 | | | | | | | 27.47 | 7.39 | 0.464 | 4.21 | 0.745 | 21.7 |
| BC64 | 7/14/2011 | 28.67 | 7.32 | 0.448 | 3.29 | 0.164 | 6.2 | 28.45 | 7.35 | 0.451 | 3.43 | 1.024 | 7.0 | 27.96 | 7.43 | 0.459 | 3.73 | 2.052 | 11.1 |
| BC65 | 7/14/2011 | 28.97 | 7.24 | 0.437 | 2.27 | 0.140 | 2.5 | 28.48 | 7.23 | 0.444 | 1.88 | 1.109 | 1.3 | 28.37 | 7.31 | 0.444 | 2.31 | 2.353 | 7.7 |
| BC66 | 7/14/2011 | 28.44 | 7.16 | 0.441 | 1.60 | 0.124 | 1.5 | 28.33 | 7.16 | 0.442 | 1.75 | 0.661 | 1.2 | 28.25 | 7.17 | 0.444 | 1.72 | 1.211 | 2.9 |
| BC67 | 7/14/2011 | 28.60 | 7.22 | 0.440 | 2.32 | 0.170 | 2.1 | 28.53 | 7.22 | 0.440 | 2.29 | 0.615 | 2.2 | 28.33 | 7.26 | 0.443 | 2.67 | 1.322 | 33.6 |
| BC68 | 7/14/2011 | 29.16 | 7.24 | 0.455 | 2.73 | 0.173 | 1.6 | 29.14 | 7.27 | 0.454 | 3.01 | 0.772 | 3.3 | 29.12 | 7.32 | 0.453 | 3.36 | 1.535 | 3.2 |
| BC69 | 7/14/2011 | 29.76 | 7.17 | 0.454 | 1.89 | 0.178 | 1.1 | 29.71 | 7.18 | 0.454 | 1.77 | 0.643 | 6.4 | 29.54 | 7.19 | 0.455 | 1.69 | 1.281 | 32.0 |
| BC70 | 7/14/2011 | 29.46 | 7.15 | 0.448 | 1.61 | 0.130 | 1.5 | 29.46 | 7.20 | 0.448 | 1.95 | 0.729 | 5.9 | 29.42 | 7.23 | 0.448 | 2.15 | 1.441 | 12.7 |
| BC72 | 7/14/2011 | 29.22 | 7.43 | 0.434 | 3.97 | 0.162 | 24.2 | 28.83 | 7.50 | 0.428 | 4.57 | 0.564 | 46.9 | 28.69 | 7.54 | 0.424 | 4.77 | 1.123 | 62.5 |
| BC75 | 7/14/2011 | 28.64 | 7.58 | 0.421 | 5.20 | 0.119 | 81.2 | | | | | | | | | | | | |
| BC8 | 7/14/2011 | 29.21 | 7.14 | 0.442 | 2.29 | 0.167 | 0.3 | 28.61 | 7.14 | 0.440 | 2.08 | 1.745 | 0.6 | 28.52 | 7.18 | 0.440 | 2.03 | 2.645 | 6.5 |
| BC85 | 7/14/2011 | 29.86 | 7.15 | 0.451 | 2.31 | 0.124 | 1.7 | 29.48 | 7.16 | 0.453 | 2.21 | 0.625 | 2.5 | 29.18 | 7.18 | 0.452 | 2.55 | 1.289 | 2.2 |
| BC86 | 7/14/2011 | 29.28 | 7.14 | 0.435 | 1.70 | 0.128 | -0.3 | 28.33 | 7.17 | 0.432 | 1.63 | 0.921 | 0.0 | 28.07 | 7.39 | 0.432 | 2.42 | 1.901 | 18.0 |
| HN26 | 7/21/2011 | 30.66 | 7.18 | 0.330 | 5.09 | 0.094 | 2.7 | 27.38 | 7.00 | 0.341 | 0.59 | 1.856 | 9.1 | 24.86 | 6.90 | 0.392 | 0.79 | 3.750 | 62.5 |
| HN27 | 7/21/2011 | 29.83 | 7.03 | 0.337 | 1.95 | 0.103 | 1.4 | 26.81 | 6.96 | 0.362 | 0.41 | 2.704 | 1.7 | 23.42 | 6.75 | 0.385 | 0.67 | 5.389 | 43.0 |
| HN31 | 7/21/2011 | 30.80 | 7.09 | 0.335 | 4.42 | 0.099 | 17.3 | | | | | | | 29.99 | 7.06 | 0.339 | 3.06 | 0.546 | 28.5 |
| HN33 | 7/21/2011 | 28.76 | 7.00 | 0.317 | 2.00 | 0.092 | 4.4 | 28.67 | 7.03 | 0.317 | 2.06 | 1.126 | 4.6 | 28.64 | 7.15 | 0.318 | 2.64 | 2.252 | 6.6 |
| HN36 | 7/21/2011 | 28.41 | 6.97 | 0.313 | 1.69 | 0.109 | 2.6 | 27.11 | 6.97 | 0.314 | 0.72 | 0.893 | 3.8 | 25.95 | 7.04 | 0.310 | 0.89 | 1.794 | 4.1 |
| HN37 | 7/21/2011 | 30.04 | 7.04 | 0.312 | 3.61 | 0.097 | 2.3 | 26.89 | 6.91 | 0.350 | 0.60 | 2.048 | 4.0 | 25.86 | 6.85 | 0.356 | 0.81 | 4.072 | 12.7 |
| HN39 | 7/21/2011 | 29.22 | 7.08 | 0.306 | 3.38 | 0.103 | 1.2 | 27.38 | 6.97 | 0.297 | 0.81 | 0.926 | 3.4 | 25.56 | 6.83 | 0.337 | 1.44 | 1.851 | 34.3 |
| HN40 | 7/21/2011 | 28.48 | 6.98 | 0.319 | 1.10 | 0.100 | 10.4 | 28.38 | 7.00 | 0.319 | 1.06 | 1.243 | 4.7 | 28.53 | 7.06 | 0.319 | 1.22 | 2.549 | 9.2 |
| HN41 | 7/21/2011 | 29.31 | 7.00 | 0.326 | 1.16 | 0.099 | 3.5 | 28.79 | 7.00 | 0.326 | 0.68 | 1.342 | 4.3 | 28.78 | 7.02 | 0.326 | 0.52 | 2.621 | 4.9 |
| HN43 | 7/21/2011 | 32.38 | 7.18 | 0.326 | 7.40 | 0.110 | 2.0 | 28.46 | 6.98 | 0.338 | 0.67 | 1.000 | 7.2 | 27.23 | 6.95 | 0.350 | 0.82 | 1.973 | 9.2 |
| HN44 | 7/21/2011 | 30.91 | 7.01 | 0.292 | 5.37 | 0.101 | 2.2 | 27.69 | 6.71 | 0.296 | 0.52 | 1.117 | 14.8 | 23.30 | 6.57 | 0.345 | 0.83 | 2.250 | 16.8 |

# Appendix C
# Laboratory Analytical Results

# Table C1. Water Analyses by LGS

| Site | Description | Date | Bromide (mg/L) | Chloride (mg/L) | Fluoride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Phosphate (mg/L) | Sulfate (mg/L) | Orthophosphate (mg/L) | TSS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| site 1 | Sorrel @ Atch | 5/19/2011 | <0.01 | 5.96 | 0.0867 | 3.85 | <0.01 | 0.167 | 28.51 | 0.16 | 497 |
| site 2 | Sorrel W of oil field drain | 5/19/2011 | <0.01 | 7.08 | 0.105 | 2.03 | <0.01 | 0.0842 | 27.2 | 0.2 | 153 |
| site 3 | Pigeon near GIWW | 5/19/2011 | <0.01 | 8.02 | 0.0839 | 1.44 | <0.01 | 0.105 | 28.56 | 0.2 | 41 |
| site 4 | Pigeon near Big Pigeon | 5/19/2011 | <0.01 | 7.55 | 0.0994 | 2.38 | <0.01 | 0.0809 | 27.26 | 0.16 | 49 |
| site 5 | Cross Bayou near ltl pigeon | 5/19/2011 | <0.01 | 6.95 | 0.102 | 3.35 | <0.01 | 0.0859 | 27.41 | 0.19 | 26 |
| site 6 | BAYOU POSTILLION | 5/19/2011 | <0.01 | 8.81 | 0.105 | 1.69 | <0.01 | 0.126 | 27.01 | 0.16 | 30 |
| site 7 | OLD RIVER AT GIWW | 5/19/2011 | <0.01 | 9.47 | 0.11 | 1.05 | <0.01 | 0.108 | 27.65 | 0.2 | 3 |
| site 8 | GIWW N of OLD RIVER | 5/19/2011 | <0.01 | 8.4 | 0.104 | 2.14 | <0.01 | 0.0642 | 28.16 | 0.21 | 41 |
| site 9 | STREAM | 5/19/2011 | <0.01 | 10.29 | 0.105 | 0.9 | <0.01 | 0.0952 | 29.48 | 0.17 | <1 |
| site 10 | STREAM | 5/19/2011 | <0.01 | 7.16 | 0.1115 | 3.435 | <0.01 | 0.06605 | 27.53 | 0.16 | 18 |
| site 11 | STREAM | 5/19/2011 | <0.01 | 6.6 | 0.108 | 4.14 | <0.01 | 0.125 | 28.31 | 0.18 | 48 |
| site 12 | PIPELINE | 5/19/2011 | <0.01 | 9.2 | 0.108 | 1.32 | <0.01 | 0.0987 | 27.24 | 0.21 | <1 |
| site 13 | LITTLE BAYOU SORREL @ GIWW | 5/19/2011 | <0.01 | 11.44 | 0.108 | 0.592 | <0.01 | 0.13 | 28.23 | 0.17 | <1 |
| site 14 | LITTLE BAYOU SORREL @ JESSIE | 5/19/2011 | <0.01 | 7.43 | 0.101 | 1.94 | <0.01 | 0.109 | 29.04 | 0.09 | 15 |
| site 15 | DOG ISLAND PASS | 5/19/2011 | <0.01 | 7.15 | 0.126 | 3 | <0.01 | 0.0767 | 27.94 | 0.14 | 36 |
| site 17 | FLAT LAKE WEST SIDE | 5/19/2011 | <0.01 | 7.02 | 0.107 | 2.56 | <0.01 | 0.0848 | 28.28 | 0.07 | <1 |
| site 18 | FLAT LAKE @ BEAR BAYOU | 5/19/2011 | | | | | | | | 0.14 | <1 |
| site 19 | FLAT LAKE EAST SIDE | 5/19/2011 | <0.01 | 9.98 | 0.117 | 0.963 | <0.01 | 0.0784 | 29.88 | 0.14 | 12 |
| site 20 | INTRACOASTAL @ DOIRONS LANDING | 5/19/2011 | <0.01 | 8.91 | 0.11 | 1.39 | <0.01 | 0.0897 | 28.16 | 0.19 | 66 |
| site 21 | MAIN CHANNEL BEFORE GIWW | 5/19/2011 | <0.01 | 6.875 | 0.114 | 3.53 | <0.01 | 0.095 | 27.41 | 0.16 | 107 |
| site 22 | GIWW AT FLAT LAKE | 5/19/2011 | <0.01 | 9.62 | 0.103 | 1.48 | <0.01 | 0.152 | 28.07 | 0.15 | 16 |
| site 23 | MAIN CHANNEL + GIWW | 5/19/2011 | <0.01 | 8.62 | 0.106 | 2.06 | <0.01 | 0.0866 | 28.27 | 0.13 | 57 |
| site 24 | Lake Rond | 5/19/2011 | <0.01 | 6.67 | 0.126 | 4.52 | <0.01 | 0.0872 | 28.28 | 0.18 | 243 |
| site 25 | Bayou Crook Chene | 5/19/2011 | <0.01 | 6.95 | 0.126 | 4.39 | <0.01 | 0.0526 | 28.27 | 0.1 | 205 |
| site 26 | Lake Rond | 5/19/2011 | <0.01 | 6.8 | 0.115 | 4.28 | <0.01 | 0.0557 | 27.88 | 0.175 | 88 |
| site 27 | Bayou Benoit Launch | 5/19/2011 | <0.01 | 6.57 | 0.108 | 4.14 | <0.01 | 0.0704 | 27.7 | 0.16 | 43.5 |
| site 28 | Buffalo Cove | 5/19/2011 | <0.01 | 10.52 | 0.1037 | 1.0325 | <0.01 | 0.181 | 27.565 | 0.27 | <1-1 |
| site 29 | Lake Fausse Pointe Cut | 5/19/2011 | <0.01 | 7.36 | 0.124 | 3.13 | <0.01 | 0.106 | 27.95 | 0.235 | 91.5 |
| site 30 | Grand Lake | 5/19/2011 | <0.01 | 7.7 | 0.115 | 2.865 | <0.01 | 0.11415 | 28.195 | 0.18 | 13 |
| site 33 | Grand River@ work canal | 5/19/2011 | <0.01 | 6.69 | 0.107 | 4.75 | <0.01 | 0.0421 | 28.5 | 0.13 | 378 |
| site 34 | GIWW @ grand river | 5/19/2011 | <0.01 | 7.55 | 0.115 | 2.54 | <0.01 | 0.0588 | 27.86 | 0.12 | 168 |
| site 35 | River | 5/19/2011 | <0.01 | 6.41 | 0.0959 | 4.41 | <0.01 | 0.14 | 28.06 | 0.16 | 289 |

| Site | Description | Date | Bromide (mg/L) | Chloride (mg/L) | Fluoride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Phosphate (mg/L) | Sulfate (mg/L) | Orthophosphate (mg/L) | TSS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| site 36 | BAYOU BOUTTE @ LITTLE BAYOU SORREL | 5/19/2011 | <0.01 | 6.7 | 0.129 | 3.88 | <0.01 | 0.0611 | 27.66 | 0.17 | 104 |
| site 37 | Blue Point Chute | 5/19/2011 | <0.01 | 6.13 | 0.107 | 5.25 | <0.01 | 0.0644 | 26.21 | 0.12 | <1 |
| site 101 | | 5/19/2011 | <0.01 | 7.27 | 0.113 | 3.07 | <0.01 | 0.126 | 27.04 | 0.165 | 26.5 |
| site 102 | Grand Lake Channel | 5/19/2011 | <0.01 | 7.365 | 0.109 | 3.63 | <0.01 | 0.0929 | 27.965 | 0.175 | 47 |
| N end of EGL | North end of East Grand Lake | 5/19/2011 | <0.01 | 6.33 | 0.105 | 4.79 | <0.01 | 0.063 | 28.15 | 0.17 | 83 |
| Murphy Lake | Murphy Lake | 5/19/2011 | <0.01 | 6.91 | 0.127 | 4.67 | <0.01 | 0.093 | 28.27 | 0.26 | 40 |
| site 1 | Sorrel @ Atch | 5/26/2011 | <0.01 | 9.95 | 0.215 | 4.9 | <0.01 | 1.06 | 29.82 | 0.3 | 127 |
| site 2 | Sorrel W of oil field drain | 5/26/2011 | <0.01 | 9.78 | 0.234 | 3.68 | <0.01 | 1.07 | 28.01 | 0.28 | 7 |
| site 3 | Pigeon near GIWW | 5/26/2011 | <0.01 | 10.43 | 0.231 | 2.64 | <0.01 | | 28.24 | 0.29 | <1 |
| site 4 | Pigeon near Big Pigeon | 5/26/2011 | <0.01 | 10.03 | 0.231 | 2.815 | <0.01 | 1.035 | 28.165 | 0.23 | 6 |
| site 5 | Cross Bayou near ltl pigeon | 5/26/2011 | <0.01 | 10.02 | 0.211 | 2.89 | <0.01 | 1.05 | 28.17 | 0.34 | 2 |
| site 6 | BAYOU POSTILLION | 5/26/2011 | <0.01 | 10.09 | 0.228 | 2.97 | <0.01 | 1.06 | 26.91 | 0.23 | 3 |
| site 7 | OLD RIVER AT GIWW | 5/26/2011 | <0.01 | 10.59 | 0.2695 | 2.965 | <0.01 | 1.03 | 27.165 | 0.23 | 6 |
| site 8 | GIWW N of OLD RIVER | 5/26/2011 | <0.01 | 10.25 | 0.236 | 3.33 | <0.01 | | 27.22 | 0.18 | 119 |
| site 9 | STREAM | 5/26/2011 | <0.01 | 10.16 | 0.277 | 3.55 | <0.01 | | 27.37 | 0.18 | 15 |
| site 10 | STREAM | 5/26/2011 | <0.01 | 9.86 | 0.251 | 4.35 | <0.01 | | 27.5 | 0.18 | 10 |
| site 11 | STREAM | 5/26/2011 | <0.01 | 9.78 | 0.204 | 4.87 | <0.01 | | 29.08 | 0.22 | 88 |
| site 12 | PIPELINE | 5/26/2011 | <0.01 | 10.72 | 0.228 | 2.48 | <0.01 | 1.12 | 26.57 | 0.23 | 5 |
| site 13 | LITTLE BAYOU SORREL @ GIWW | 5/26/2011 | <0.01 | 11.22 | 0.223 | 1.96 | <0.01 | 1.07 | 26.05 | 0.28 | <1 |
| site 14 | LITTLE BAYOU SORREL @ JESSIE | 5/26/2011 | <0.01 | 9.66 | 0.244 | 3.28 | <0.01 | | 27.44 | 0.12 | 6 |
| site 15 | DOG ISLAND PASS | 5/26/2011 | <0.01 | 9.83 | 0.263 | 3.44 | <0.01 | 1.09 | 27.2 | 0.25 | 12 |
| site 17 | FLAT LAKE WEST SIDE | 5/26/2011 | <0.01 | 9.64 | 0.228 | 3.46 | <0.01 | | 27.24 | 0.15 | 32 |
| site 18 | FLAT LAKE @ BEAR BAYOU | 5/26/2011 | <0.01 | 9.6 | 0.259 | 3.12 | <0.01 | | 27.46 | 0.25 | 6 |
| site 19 | FLAT LAKE EAST SIDE | 5/26/2011 | <0.01 | 10.99 | 0.289 | 2.66 | <0.01 | | 26.81 | 0.15 | 177 |
| site 20 | INTRACOASTAL @ DOIRONS LANDING | 5/26/2011 | <0.01 | 10.55 | 0.231 | 2.88 | <0.01 | | 27.05 | 0.16 | 431 |
| site 21 | MAIN CHANNEL BEFORE GIWW | 5/26/2011 | <0.01 | 9.84 | 0.24 | 4.61 | <0.01 | | 28.67 | 0.17 | 344 |
| site 22 | GIWW AT FLAT LAKE | 5/26/2011 | <0.01 | 11.08 | 0.268 | 2.69 | <0.01 | | 26.93 | 0.17 | 77 |
| site 23 | MAIN CHANNEL + GIWW | 5/26/2011 | <0.01 | 10.02 | 0.232 | 4.16 | <0.01 | | 28.42 | 0.23 | 95 |
| site 24 | Lake Rond | 5/26/2011 | <0.01 | 9.91 | 0.23 | 5 | <0.01 | 1.07 | 29.89 | 0.27 | 130 |
| site 25 | Bayou Crook Chene | 5/26/2011 | <0.01 | 9.82 | 0.201 | 5.1 | <0.01 | | 30.13 | 0.27 | 144 |
| site 26 | Lake Rond | 5/26/2011 | <0.01 | 9.9 | 0.201 | 4.63 | <0.01 | 1.03 | 28.98 | 0.19 | 49 |
| site 27 | Bayou Benoit Launch | 5/26/2011 | <0.01 | 11.09 | 0.203 | 3.68 | <0.01 | | 27.67 | 0.23 | 13 |
| site 28 | Buffalo Cove | 5/26/2011 | <0.01 | 9.77 | 0.2255 | 3.705 | <0.01 | | 27.9 | 0.22 | 8 |
| site 29 | Lake Fausse Pointe Cut | 5/26/2011 | <0.01 | 9.91 | 0.216 | 4.32 | <0.01 | | 28.47 | 0.24 | 66 |

| Site | Description | Date | Bromide (mg/L) | Chloride (mg/L) | Fluoride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Phosphate (mg/L) | Sulfate (mg/L) | Orthophosphate (mg/L) | TSS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| site 30 | Grand Lake | 5/26/2011 | <0.01 | 10.39 | 0.258 | 4.03 | <0.01 | | 27.95 | 0.17 | 14 |
| site 33 | Grand River@ work canal | 5/26/2011 | <0.01 | 10.02 | 0.257 | 3.74 | <0.01 | 1.12 | 27.54 | 0.28 | 27 |
| site 34 | GIWW @ grand river | 5/26/2011 | <0.01 | 9.8 | 0.237 | 4 | <0.01 | 1.07 | 27.82 | 0.23 | 17 |
| site 35 | River | 5/26/2011 | <0.01 | 10.2 | 0.297 | 5.12 | <0.01 | | 30.24 | 0.24 | 127 |
| site 36 | BAYOU BOUTTE @ LITTLE BAYOU SORREL | 5/26/2011 | <0.01 | 10.08 | 0.336 | 4.75 | <0.01 | 1.06 | 28.61 | 0.18 | 55 |
| site 37 | Blue Point Chute | 5/26/2011 | <0.01 | 9.83 | 0.229 | 4.38 | <0.01 | 1.03 | 28.41 | 0.27 | 32 |
| site 101 | | 5/26/2011 | <0.01 | 10.04 | 0.223 | 3.87 | <0.01 | | 27.97 | 0.2 | 42 |
| site 102 | Grand Lake Channel | 5/26/2011 | <0.01 | 9.91 | 0.243 | 4.24 | <0.01 | | 28.3 | 0.31 | 46 |
| A9 | Black bayou | 5/26/2011 | <0.01 | 8.7 | 0.181 | 4.11 | <0.01 | 1.17 | 26.52 | 0.39 | 15 |
| A10 | North drain 1 | 5/26/2011 | <0.01 | 8.8 | 0.195 | 4.32 | <0.01 | 1.12 | 27.06 | 0.27 | 11 |
| A11 | N drain 2 | 5/26/2011 | <0.01 | 8.86 | 0.226 | 4.36 | <0.01 | 1.13 | 27.14 | 0.24 | 20 |
| A12 | Klng ditch w | 5/26/2011 | <0.01 | 9.35 | 0.228 | 4.29 | <0.01 | 1.13 | 27.19 | 0.27 | 34 |
| A13 | Klng ditch E | 5/26/2011 | <0.01 | 9.33 | 0.212 | 4.37 | <0.01 | 1.1 | 27.25 | 0.22 | 27 |
| A14 | Work canal up gr | 5/26/2011 | <0.01 | 9.47 | 0.211 | 3.72 | <0.01 | 1.12 | 27.05 | 0.29 | 57 |
| A15 | Upper flats | 5/26/2011 | <0.01 | 9.92 | 0.263 | 3.9 | <0.01 | 1.06 | 27.24 | 0.23 | 38 |
| A16 | Work canal | 5/26/2011 | <0.01 | 9.71 | 0.241 | 4.35 | <0.01 | 1.1 | 27.29 | 0.25 | 30 |
| Gas Pipeline | Gas Pipeline | 5/26/2011 | <0.01 | 10.88 | 0.233 | 3.03 | <0.01 | 1.12 | 28.07 | 0.31 | 8 |
| Grndiv | Grand River near Atch | 5/26/2011 | <0.01 | 10.45 | 0.25 | 3.21 | <0.01 | 1.21 | 27.71 | 0.44 | 3 |
| N end of EGL | North end of East Grand Lake | 5/26/2011 | <0.01 | 10.38 | 0.281 | 4.85 | <0.01 | 1.07 | 29.87 | 0.23 | 71 |
| NASQUAN | Atchafalaya River at Melville | 5/26/2011 | <0.01 | 9.71 | 0.206 | 4.13 | <0.01 | | 30.46 | 0.21 | 57 |
| NASQUAN | Lower Atchafalaya River at Morgan City | 5/26/2011 | <0.01 | 9.74 | 0.223 | 4 | <0.01 | | 28.54 | 0.17 | 116 |
| NASQUAN | Mississippi River at St. Francisville | 5/26/2011 | <0.01 | 9.18 | 0.207 | 5.04 | <0.01 | | 28.83 | | |
| NASQUAN | Wax Lake Outlet | 5/26/2011 | <0.01 | 9.49 | 0.211 | 4.75 | <0.01 | | 28.86 | | |
| site 3 | Pigeon near GIWW | 6/2/2011 | <0.01 | 11.28 | 0.162 | 2.58 | <0.01 | 0.89 | 27.61 | 0.24 | 4 |
| site 4 | Pigeon near Big Pigeon | 6/2/2011 | <0.01 | 11.28 | 0.175 | 2.61 | <0.01 | 0.924 | 27.13 | 0.25 | 2 |
| site 5 | Cross Bayou near ltl pigeon | 6/2/2011 | <0.01 | 11.24 | 0.179 | 2.56 | <0.01 | 0.932 | 26.9 | 0.26 | 7 |
| site 6 | BAYOU POSTILLION | 6/2/2011 | <0.01 | 11.35 | 0.171 | 2.63 | <0.01 | 0.943 | 27.55 | 0.4 | 9 |
| site 7 | OLD RIVER AT GIWW | 6/2/2011 | <0.01 | 11.66 | 0.2 | 2.49 | <0.01 | 0.866 | 27.4 | 0.21 | 7 |
| site 8 | GIWW N of OLD RIVER | 6/2/2011 | <0.01 | 11.37 | 0.173 | 2.77 | <0.01 | 0.926 | 27.89 | 0.26 | 24 |
| site 9 | STREAM | 6/2/2011 | <0.01 | 11.41 | 0.169 | 1.82 | <0.01 | 0.95 | 26.44 | 0.35 | 4 |
| site 10 | STREAM | 6/2/2011 | <0.01 | 12.37 | 0.204 | 3 | <0.01 | 0.835 | 28.99 | 0.23 | 13 |
| site 11 | STREAM | 6/2/2011 | <0.01 | 13.01 | 0.192 | 3.39 | <0.01 | 0.876 | 30.19 | 0.22 | 42 |
| site 12 | PIPELINE | 6/2/2011 | <0.01 | 11.48 | 0.203 | 2.26 | <0.01 | 0.905 | 26.77 | 0.19 | 11 |
| site 13 | LITTLE BAYOU SORREL @ GIWW | 6/2/2011 | <0.01 | 11.54 | 0.192 | 2.165 | <0.01 | 0.905 | 26.435 | 0.29 | 3 |

| Site | Description | Date | Bromide (mg/L) | Chloride (mg/L) | Fluoride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Phosphate (mg/L) | Sulfate (mg/L) | Orthophosphate (mg/L) | TSS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| site 14 | LITTLE BAYOU SORREL @ JESSIE | 6/2/2011 | <0.01 | 11.49 | 0.187 | 1.71 | <0.01 | 0.92 | 26.54 | 0.29 | 4 |
| site 15 | DOG ISLAND PASS | 6/2/2011 | <0.01 | 11.88 | 0.183 | 3.11 | <0.01 | 0.856 | 29.16 | | |
| site 17 | FLAT LAKE WEST SIDE | 6/2/2011 | <0.01 | 12.01 | 0.21 | 3.1 | <0.01 | 0.813 | 29.24 | 0.18 | 17 |
| site 18 | FLAT LAKE @ BEAR BAYOU | 6/2/2011 | <0.01 | 11.63 | 0.209 | 1.87 | <0.01 | 0.88 | 26.73 | 0.26 | 10 |
| site 19 | FLAT LAKE EAST SIDE | 6/2/2011 | <0.01 | 10.66 | 0.183 | 2.34 | <0.01 | | 26.75 | 0.24 | 54 |
| site 20 | INTRACOASTAL @ DOIRONS LANDING | 6/2/2011 | <0.01 | 11.48 | 0.215 | 2.56 | <0.01 | 0.845 | 27.5 | 0.23 | 153 |
| site 21 | MAIN CHANNEL BEFORE GIWW | 6/2/2011 | <0.01 | 12.45 | 0.192 | 3.37 | <0.01 | 0.861 | 29.95 | | 70 |
| site 22 | GIWW AT FLAT LAKE | 6/2/2011 | <0.01 | 11.67 | 0.217 | 2.64 | <0.01 | 0.853 | 27.57 | 0.21 | 49 |
| site 23 | MAIN CHANNEL + GIWW | 6/2/2011 | <0.01 | 18.44 | 0.251 | 5.39 | <0.01 | 0.927 | 49.28 | 0.24 | 134 |
| site 24 | Lake Rond | 6/2/2011 | <0.01 | 13.67 | 0.194 | 3.78 | <0.01 | 0.813 | 32.97 | 0.2 | 104 |
| site 25 | Bayou Crook Chene | 6/2/2011 | <0.01 | 12.915 | 0.233 | 3.67 | <0.01 | 0.818 | 31.34 | 0.23 | 48 |
| site 26 | Lake Rond | 6/2/2011 | <0.01 | 12.15 | 0.248 | 3.21 | <0.01 | 0.806 | 30.68 | 0.27 | 45 |
| site 27 | Bayou Benoit Launch | 6/2/2011 | <0.01 | 11.89 | 0.219 | 2.93 | <0.01 | 0.832 | 29.07 | 0.25 | 24 |
| site 28 | Buffalo Cove | 6/2/2011 | <0.01 | 12.4 | 0.197 | 2.81 | <0.01 | 0.83 | 29.92 | 0.27 | 16 |
| site 29 | Lake Fausse Pointe Cut | 6/2/2011 | <0.01 | 12.74 | 0.197 | 3.1 | <0.01 | 0.882 | 29.85 | 0.24 | 55 |
| site 30 | Grand Lake | 6/2/2011 | <0.01 | 12.55 | 0.241 | 2.95 | <0.01 | 0.86 | 29.31 | 0.3 | 20 |
| site 33 | Grand River@ work canal | 6/2/2011 | <0.01 | 11.7 | 0.221 | 3.25 | <0.01 | 0.942 | 29.43 | 0.62 | 2 |
| site 34 | GIWW @ grand river | 6/2/2011 | <0.01 | 11.82 | 0.404 | 1.38 | <0.01 | 1.15 | 26.75 | 0.4 | <1 |
| site 35 | River | 6/2/2011 | <0.01 | 12.51 | 0.225 | 3.6 | <0.01 | 0.805 | 31.61 | 0.27 | 73 |
| site 36 | BAYOU BOUTTE @ LITTLE BAYOU SORREL | 6/2/2011 | <0.01 | 12.73 | 0.172 | 3.57 | <0.01 | 0.809 | 30.47 | 0.2 | 39 |
| site 37 | Blue Point Chute | 6/2/2011 | <0.01 | 12.76 | 0.216 | 3.09 | <0.01 | 0.838 | 29.83 | 0.26 | 28 |
| site 101 | | 6/2/2011 | <0.01 | 12.56 | 0.328 | 2.97 | <0.01 | 0.851 | 29.3 | 0.22 | 24 |
| site 102 | Grand Lake Channel | 6/2/2011 | <0.01 | 12.85 | 0.326 | 3.07 | <0.01 | 0.894 | 29.48 | 0.28 | 29 |
| A9 | Black bayou | 6/2/2011 | <0.01 | 11.85 | 0.253 | 3.18 | <0.01 | 0.99 | 28.82 | 0.37 | 9 |
| A10 | North drain 1 | 6/2/2011 | <0.01 | 11.54 | 0.183 | 3.1 | <0.01 | 1.02 | 29.84 | 0.37 | 8 |
| A11 | N drain 2 | 6/2/2011 | <0.01 | 11.8 | 0.214 | 3.56 | <0.01 | 0.912 | 30.04 | 0.43 | 8 |
| A12 | Klng ditch w | 6/2/2011 | <0.01 | 11.75 | 0.209 | 3.25 | <0.01 | 0.902 | 29.91 | 0.33 | 11 |
| A13 | Klng ditch E | 6/2/2011 | <0.01 | 11.82 | 0.227 | 3.31 | <0.01 | 0.922 | 30.2 | 0.28 | 7 |
| A14 | Work canal up gr | 6/2/2011 | <0.01 | 11.52 | 0.222 | 2.56 | <0.01 | 0.955 | 28.38 | 0.35 | 6 |
| A15 | Upper flats | 6/2/2011 | <0.01 | 11.56 | 0.181 | 3.29 | <0.01 | 0.928 | 29.34 | 0.31 | 7 |
| A16 | Work canal | 6/2/2011 | <0.01 | 12.37 | 0.2515 | 3.77 | <0.01 | 0.94 | 29.96 | 0.29 | 21 |
| Grndiv | Grand River near Atch | 6/2/2011 | <0.01 | 11.65 | 0.2 | 2.25 | <0.01 | 1.01 | 27.65 | 0.29 | 16 |
| N end of EGL | North end of East Grand Lake | 6/2/2011 | <0.01 | 13.18 | 0.317 | 3.555 | <0.01 | 0.8795 | 30.8 | 0.33 | 43 |
| NASQUAN | NASQUAN - Atchafalaya River at Melville | 6/2/2011 | <0.01 | 12.5 | 0.137 | 3.79 | <0.01 | 0.863 | 30.5 | | |

| Site | Description | Date | Bromide (mg/L) | Chloride (mg/L) | Fluoride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Phosphate (mg/L) | Sulfate (mg/L) | Orthophosphate (mg/L) | TSS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NASQUAN | NASQUAN - Lower Atchafalaya River at Morgan City | 6/2/2011 | <0.01 | 11.3 | 0.139 | 2.9 | <0.01 | 0.826 | 27.3 | | |
| NASQUAN | NASQUAN - Mississippi River at St. Francisville | 6/2/2011 | <0.01 | 11.55 | 0.144 | 4.445 | <0.01 | 0.868 | 31.9 | 0.23 | 41 |
| NASQUAN | NASQUAN - Wax Lake Outlet | 6/2/2011 | <0.01 | 12 | 0.14 | 3.68 | <0.01 | | 29.4 | 0.19 | 161 |
| site 1 | Sorrel @ Atch | 6/9/2011 | <0.01 | 13.11 | 0.135 | 4.06 | <0.01 | 0.816 | 34.51 | 0.31 | 48 |
| flood 1.5 | Indigo nr acces canal | 6/9/2011 | <0.01 | 13.24 | 0.124 | 2.95 | <0.01 | 0.85 | 33.4 | 0.27 | 11 |
| site 2 | Sorrel W of oil field drain | 6/9/2011 | <0.01 | 7.7 | 0.109 | 1.2 | <0.01 | 0.806 | 16.37 | 0.11 | 17 |
| site 3 | Pigeon near GIWW | 6/9/2011 | <0.01 | 11.89 | 0.133 | 2.11 | <0.01 | 0.847 | 30.94 | 0.29 | 4 |
| site 4 | Pigeon near Big Pigeon | 6/9/2011 | <0.01 | 11.44 | 0.128 | 1.79 | <0.01 | 0.882 | 29.56 | 0.28 | 4 |
| site 5 | Cross Bayou near ltl pigeon | 6/9/2011 | <0.01 | 4.55 | 0.107 | 1.57 | <0.01 | | 5.17 | 0.08 | 6 |
| site 6 | BAYOU POSTILLION | 6/9/2011 | <0.01 | 11.79 | 0.135 | 1.81 | <0.01 | 0.895 | 30.83 | 0.33 | 4 |
| site 7 | OLD RIVER AT GIWW | 6/9/2011 | <0.01 | 10.38 | 0.126 | | <0.01 | 0.803 | 25.23 | 0.28 | 2 |
| site 8 | GIWW N of OLD RIVER | 6/9/2011 | <0.01 | 12.01 | 0.129 | 2.015 | <0.01 | 0.9195 | 31.8 | 0.34 | 10 |
| site 9 | STREAM | 6/9/2011 | <0.01 | 11.78 | 0.126 | 1.21 | <0.01 | 0.932 | 27.62 | 0.43 | 1 |
| site 10 | STREAM | 6/9/2011 | <0.01 | 9.61 | 0.111 | 1.46 | <0.01 | | 21.85 | 0.23 | 3 |
| site 11 | STREAM | 6/9/2011 | <0.01 | 13.41 | 0.205 | 3.66 | <0.01 | 0.822 | 34.29 | 0.32 | 75 |
| site 12 | PIPELINE | 6/9/2011 | <0.01 | 11.34 | 0.1745 | 1.865 | <0.01 | 0.9025 | 27.87 | 0.39 | <1 |
| site 13 | LITTLE BAYOU SORREL @ GIWW | 6/9/2011 | <0.01 | 11.06 | 0.143 | 1.82 | <0.01 | 0.936 | 27.02 | 0.32 | 1 |
| site 14 | LITTLE BAYOU SORREL @ JESSIE | 6/9/2011 | <0.01 | 11.28 | 0.14 | 1.09 | <0.01 | 0.952 | 26.08 | 0.51 | <1 |
| site 15 | DOG ISLAND PASS | 6/9/2011 | <0.01 | 12.85 | 0.149 | 2.74 | <0.01 | 0.878 | 30.89 | 0.2 | 6 |
| site 17 | FLAT LAKE WEST SIDE | 6/9/2011 | <0.01 | 12.59 | 0.182 | 2.27 | <0.01 | 0.851 | 29.86 | 0.24 | 11 |
| site 18 | FLAT LAKE @ BEAR BAYOU | 6/9/2011 | <0.01 | 11.08 | 0.139 | 1.37 | <0.01 | 0.912 | 26.57 | 0.28 | 3 |
| site 19 | FLAT LAKE EAST SIDE | 6/9/2011 | <0.01 | 11.46 | 0.165 | 1.93 | <0.01 | 0.9 | 29.05 | 0.32 | 26 |
| site 20 | INTRACOASTAL @ DOIRONS LANDING | 6/9/2011 | | | | | | | | 0.36 | 30 |
| site 21 | MAIN CHANNEL BEFORE GIWW | 6/9/2011 | <0.01 | 12.92 | 0.184 | 3.49 | <0.01 | 0.818 | 33.59 | 0.36 | 95 |
| site 22 | GIWW AT FLAT LAKE | 6/9/2011 | <0.01 | 11.52 | 0.149 | 2.16 | <0.01 | 0.907 | 30.18 | 0.31 | 30 |
| site 23 | MAIN CHANNEL + GIWW | 6/9/2011 | <0.01 | 12.81 | 0.146 | 3.57 | <0.01 | 0.853 | 33.55 | 0.23 | 126 |
| site 24 | Lake Rond | 6/9/2011 | <0.01 | 13.12 | 0.216 | 3.85 | <0.01 | 0.87 | 33.92 | 0.25 | 100 |
| site 25 | Bayou Crook Chene | 6/9/2011 | <0.01 | 13.19 | 0.192 | 4.06 | <0.01 | 0.86 | 34.53 | 0.2 | 102 |
| site 26 | Lake Rond | 6/9/2011 | <0.01 | 13.29 | 0.201 | 3.84 | <0.01 | 0.843 | 34.37 | 0.18 | 53 |
| site 27 | Bayou Benoit Launch | 6/9/2011 | <0.01 | 13.27 | 0.2395 | 3.02 | <0.01 | 0.8315 | 31.865 | 0.28 | 9 |
| site 28 | Buffalo Cove | 6/9/2011 | <0.01 | 13.08 | 0.315 | 2.06 | <0.01 | 0.829 | 30.78 | 0.21 | 4 |
| site 29 | Lake Fausse Pointe Cut | 6/9/2011 | <0.01 | 13.15 | 0.207 | 3.2 | <0.01 | | 33.4 | 0.29 | 27 |
| site 30 | Grand Lake | 6/9/2011 | <0.01 | 13.03 | 0.164 | 2.72 | <0.01 | 0.841 | 32.06 | 0.27 | 6 |
| site 33 | Grand River@ work canal | 6/9/2011 | | | | | | | | 0.37 | 19 |

| Site | Description | Date | Bromide (mg/L) | Chloride (mg/L) | Fluoride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Phosphate (mg/L) | Sulfate (mg/L) | Orthophosphate (mg/L) | TSS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| site 34 | GIWW @ grand river | 6/9/2011 | <0.01 | 10.13 | 0.189 | 1.79 | <0.01 | 0.902 | 24.57 | 0.33 | 10 |
| site 35 | River | 6/9/2011 | <0.01 | 12.76 | 0.196 | 3.91 | <0.01 | 0.87 | 33.16 | | 83 |
| site 36 | BAYOU BOUTTE @ LITTLE BAYOU SORREL | 6/9/2011 | <0.01 | 13.42 | 0.19 | 3.53 | <0.01 | 0.829 | 33.8 | 0.27 | 27 |
| site 101 | | 6/9/2011 | <0.01 | 13.14 | 0.226 | 2.81 | <0.01 | 0.864 | 31.92 | 0.29 | 12 |
| site 102 | Grand Lake Channel | 6/9/2011 | <0.01 | 13.17 | 0.209 | 3.18 | <0.01 | 0.843 | 32.72 | 0.28 | 36 |
| A9 | Black bayou | 6/9/2011 | <0.01 | 12.14 | 0.21 | 1.61 | <0.01 | 1.18 | 31.65 | 0.65 | <1 |
| A10 | North drain 1 | 6/9/2011 | <0.01 | 12.4 | 0.151 | 2.31 | <0.01 | 1.08 | 33.07 | 0.54 | 7 |
| A11 | N drain 2 | 6/9/2011 | <0.01 | 12.57 | 0.157 | 2.61 | <0.01 | 0.963 | 34.09 | 0.48 | 2 |
| A12 | Klng ditch w | 6/9/2011 | <0.01 | 12.54 | 0.154 | 2.59 | <0.01 | 0.976 | 33.98 | 0.39 | 3 |
| A13 | Klng ditch E | 6/9/2011 | <0.01 | 12.67 | 0.299 | 2.57 | <0.01 | 0.98 | 33.8 | 0.4 | 11 |
| A14 | Work canal up gr | 6/9/2011 | <0.01 | 11.81 | 0.237 | 1.28 | <0.01 | 1.06 | 29.48 | 0.5 | 9 |
| A15 | Upper flats | 6/9/2011 | <0.01 | 12.18 | 0.154 | 2.15 | <0.01 | 0.897 | 32.89 | 0.4 | 10 |
| A16 | Work canal | 6/9/2011 | <0.01 | 12.48 | 0.15 | 2.47 | <0.01 | 0.97 | 33.44 | 0.41 | 7 |
| Grndiv | Grand River near Atch | 6/9/2011 | <0.01 | 12.19 | 0.122 | 1.63 | <0.01 | 1.32 | 28.57 | 0.85 | <1 |
| N end of EGL | North end of East Grand Lake | 6/9/2011 | <0.01 | 13.23 | 0.126 | 3.54 | <0.01 | 0.938 | 33.99 | 0.37 | 25 |
| NASQUAN | NASQUAN - Atchafalaya River at Melville | 6/9/2011 | <0.01 | 13 | 0.141 | 4.01 | <0.01 | 0.894 | 33.5 | | |
| NASQUAN | NASQUAN - Lower Atchafalaya River at Morgan City | 6/9/2011 | <0.01 | 12.1 | 0.142 | 2.63 | <0.01 | 0.83 | 29.7 | | |
| NASQUAN | NASQUAN - Mississippi River at St. Francisville | 6/9/2011 | <0.01 | 13.5 | 0.154 | 4.37 | <0.01 | 0.83 | 37.4 | | |
| NASQUAN | NASQUAN - Wax Lake Outlet | 6/9/2011 | <0.01 | 13 | 0.145 | 3.65 | <0.01 | 0.831 | 33.1 | | |
| site 1 | Sorrel @ Atch | 6/16/2011 | <0.01 | 6.23 | 0.101 | 0.345 | <0.01 | 2.67 | 6.23 | 0.1 | 107 |
| flood 1.5 | Indigo nr acces canal | 6/16/2011 | <0.01 | 12.75 | 0.128 | 4.23 | <0.01 | 0.899 | 31.38 | 0.26 | 4 |
| site 2 | Sorrel W of oil field drain | 6/16/2011 | | | | | | | | 0.51 | 15 |
| site 3 | Pigeon near GIWW | 6/16/2011 | <0.01 | 12.67 | 0.124 | 1.81 | <0.01 | 0.996 | 30.97 | 0.45 | <1 |
| site 4 | Pigeon near Big Pigeon | 6/16/2011 | <0.01 | 12.395 | 0.1295 | 1.235 | <0.01 | 1 | 29.68 | 0.4 | 1 |
| site 5 | Cross Bayou near ltl pigeon | 6/16/2011 | <0.01 | 12.12 | 0.133 | 1.85 | <0.01 | 1.04 | 30.48 | 0.47 | 6 |
| site 6 | BAYOU POSTILLION | 6/16/2011 | <0.01 | 12.22 | 0.12 | 0.892 | <0.01 | 1.03 | 29.31 | 0.46 | 2 |
| site 7 | OLD RIVER AT GIWW | 6/16/2011 | <0.01 | 11.98 | 0.122 | 0.93 | <0.01 | 1.01 | 28.42 | 0.43 | <1 |
| site 8 | GIWW N of OLD RIVER | 6/16/2011 | <0.01 | 12.57 | 0.125 | 1.53 | <0.01 | 1.04 | 30.62 | 0.43 | 9 |
| site 9 | STREAM | 6/16/2011 | <0.01 | 12 | 0.118 | 0.556 | <0.01 | 1.06 | 26.19 | 0.41 | <1 |
| site 10 | STREAM | 6/16/2011 | <0.01 | 12.96 | 0.117 | 2.18 | <0.01 | 0.904 | 30.43 | 0.3 | <1 |
| site 11 | STREAM | 6/16/2011 | <0.01 | 12.51 | 0.123 | 3.6 | <0.01 | 0.864 | 30.05 | 0.29 | 16 |
| site 12 | PIPELINE | 6/16/2011 | <0.01 | 11.72 | 0.123 | 0.916 | <0.01 | 1 | 27.66 | 0.32 | <1 |
| site 13 | LITTLE BAYOU SORREL @ GIWW | 6/16/2011 | <0.01 | 11.65 | 0.124 | 0.906 | <0.01 | 0.991 | 27.32 | 0.34 | |
| site 14 | LITTLE BAYOU SORREL @ JESSIE | 6/16/2011 | <0.01 | 13.07 | 0.117 | 0.966 | <0.01 | 0.991 | 29.41 | 0.32 | 1 |

| Site | Description | Date | Bromide (mg/L) | Chloride (mg/L) | Fluoride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Phosphate (mg/L) | Sulfate (mg/L) | Orthophosphate (mg/L) | TSS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| site 15 | DOG ISLAND PASS | 6/16/2011 | <0.01 | 12.91 | 0.124 | 2.91 | <0.01 | 0.902 | 30.85 | 0.25 | 11 |
| site 17 | FLAT LAKE WEST SIDE | 6/16/2011 | <0.01 | 12.69 | 0.114 | 2.56 | <0.01 | 0.865 | 30.08 | 0.18 | 12 |
| site 18 | FLAT LAKE @ BEAR BAYOU | 6/16/2011 | <0.01 | 11.85 | 0.121 | 0.667 | <0.01 | 1.03 | 25.48 | 0.37 | 6 |
| site 19 | FLAT LAKE EAST SIDE | 6/16/2011 | <0.01 | 11.73 | 0.118 | 1.3 | <0.01 | 0.938 | 27.85 | 0.35 | <1 |
| site 20 | INTRACOASTAL @ DOIRONS LANDING | 6/16/2011 | <0.01 | 11.82 | 0.122 | 1.07 | <0.01 | 0.958 | 28.18 | 0.36 | 12 |
| site 21 | MAIN CHANNEL BEFORE GIWW | 6/16/2011 | <0.01 | 12.75 | 0.129 | 5.16 | <0.01 | 0.889 | 33.1 | 0.14 | 40 |
| site 22 | GIWW AT FLAT LAKE | 6/16/2011 | <0.01 | 11.97 | 0.123 | 1.34 | <0.01 | 0.978 | 28.82 | 0.34 | 10 |
| site 23 | MAIN CHANNEL + GIWW | 6/16/2011 | <0.01 | 12.7 | 0.128 | 5.64 | <0.01 | 0.864 | 33.48 | 0.21 | 55 |
| site 24 | Lake Rond | 6/16/2011 | <0.01 | 12.9 | 0.135 | 6.2 | <0.01 | 0.904 | 34.87 | 0.2 | 43 |
| site 25 | Bayou Crook Chene | 6/16/2011 | <0.01 | 12.865 | 0.1375 | 6.185 | <0.01 | 0.904 | 34.64 | 0.16 | 82 |
| site 26 | Lake Rond | 6/16/2011 | <0.01 | 12.77 | 0.126 | 4.35 | <0.01 | 0.914 | 31.63 | 0.24 | 24 |
| site 27 | Bayou Benoit Launch | 6/16/2011 | <0.01 | 12.75 | 0.119 | 2.74 | <0.01 | 0.887 | 30.12 | 0.24 | 8 |
| site 28 | Buffalo Cove | 6/16/2011 | <0.01 | 12.925 | 0.122 | 2.73 | <0.01 | 0.888 | 30.58 | 0.26 | 2 |
| site 29 | Lake Fausse Pointe Cut | 6/16/2011 | <0.01 | 12.18 | 0.117 | 3.87 | <0.01 | 0.852 | 29.86 | 0.24 | 30 |
| site 30 | Grand Lake | 6/16/2011 | <0.01 | 12.55 | 0.121 | 2.85 | <0.01 | 0.903 | 29.32 | 0.24 | 8 |
| site 33 | Grand River@ work canal | 6/16/2011 | <0.01 | 12.76 | 0.132 | 6.31 | <0.01 | 0.89 | 35.09 | 0.24 | 38 |
| site 34 | GIWW @ grand river | 6/16/2011 | <0.01 | 13.31 | 0.126 | 1.6 | <0.01 | 1.07 | 34.96 | 0.51 | 5 |
| site 35 | River | 6/16/2011 | <0.01 | 12.78 | 0.135 | 6.46 | <0.01 | 0.818 | 35.27 | 0.2 | 41 |
| site 36 | BAYOU BOUTTE @ LITTLE BAYOU SORREL | 6/16/2011 | <0.01 | 12.27 | 0.118 | 3.52 | <0.01 | 0.927 | 29.25 | 0.27 | 13 |
| site 37 | Blue Point Chute | 6/16/2011 | <0.01 | 13.03 | 0.134 | 6.42 | <0.01 | 0.859 | 35.8 | 0.17 | 41 |
| site 102 | Grand Lake Channel | 6/16/2011 | <0.01 | 12.66 | 0.122 | 4.26 | <0.01 | 0.919 | 31.54 | 0.23 | 19 |
| site 103 | Channel | 6/16/2011 | <0.01 | 13.02 | 0.133 | 6.35 | <0.01 | 0.866 | 35.69 | 0.23 | 63 |
| A9 | Black bayou | 6/16/2011 | <0.01 | 11.34 | 0.111 | 0.563 | <0.01 | 1.67 | 22.42 | 1.15 | 3 |
| A10 | North drain 1 | 6/16/2011 | <0.01 | 11.68 | 0.118 | 0.541 | <0.01 | 1.78 | 26.66 | 1.35 | 1 |
| A11 | N drain 2 | 6/16/2011 | <0.01 | 13.12 | 0.124 | 1.25 | <0.01 | 1.25 | 31.33 | 0.68 | 7 |
| A12 | Klng ditch w | 6/16/2011 | <0.01 | 13.09 | 0.13 | 1.11 | <0.01 | 1.34 | 31.06 | 0.8 | 4 |
| A13 | Klng ditch E | 6/16/2011 | <0.01 | 13.15 | 0.123 | 1.34 | <0.01 | 1.07 | 31.63 | 0.73 | 2 |
| A14 | Work canal up gr | 6/16/2011 | <0.01 | 12.79 | 0.133 | 6.225 | <0.01 | 0.8815 | 34.74 | 0.24 | 26 |
| A15 | Upper flats | 6/16/2011 | <0.01 | 12.5 | 0.119 | 0.728 | <0.01 | 0.999 | 30.28 | 0.4 | 6 |
| A16 | Work canal | 6/16/2011 | <0.01 | 12.98 | 0.126 | 1.17 | <0.01 | 1.45 | 30.57 | 0.97 | 10 |
| Grndiv | Grand River near Atch | 6/16/2011 | <0.01 | 12.45 | 0.128 |  | <0.01 | 0.875 | 33.85 | 0.12 | 40 |
| N end of EGL | North end of East Grand Lake | 6/16/2011 | <0.01 | 14.01 |  | 6.19 | <0.01 |  |  | 0.14 | 18 |
| NASQUAN | NASQUAN - Atchafalaya River at Melville | 6/16/2011 | <0.01 | 12.4 | 0.157 | 5.84 | <0.01 | 0.889 | 32.5 |  |  |
| NASQUAN | NASQUAN - Lower Atchafalaya River at Morgan City | 6/16/2011 | <0.01 | 12.1 | 0.145 | 2.1 | <0.01 | 0.875 | 29.1 |  |  |

| Site | Description | Date | Bromide (mg/L) | Chloride (mg/L) | Fluoride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Phosphate (mg/L) | Sulfate (mg/L) | Orthophosphate (mg/L) | TSS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NASQUAN | NASQUAN - Mississippi River at St. Francisville | 6/16/2011 | <0.01 | 13.2 | 0.178 | 5.54 | <0.01 | 0.864 | 37.2 | | |
| NASQUAN | NASQUAN - Wax Lake Outlet | 6/16/2011 | <0.01 | 12.4 | 0.152 | 4.45 | <0.01 | 0.82 | 30.8 | | |
| site 1 | Sorrel @ Atch | 6/23/2011 | <0.01 | 13.8 | 0.145 | 6.63 | <0.01 | 0.889 | 39.8 | 0.21 | 45 |
| flood 1.5 | Indigo nr acces canal | 6/23/2011 | <0.01 | 14 | 0.153 | 6.46 | <0.01 | 0.89 | 40.1 | 0.24 | 55 |
| site 2 | Sorrel W of oil field drain | 6/23/2011 | <0.01 | 14 | 0.149 | 6.5 | <0.01 | 0.912 | 39.9 | 0.28 | 74 |
| site 3 | Pigeon near GIWW | 6/23/2011 | <0.01 | 12.7 | 0.129 | 2.87 | <0.01 | 1.13 | 30.1 | 0.48 | 36 |
| site 4 | Pigeon near Big Pigeon | 6/23/2011 | <0.01 | 13 | 0.1315 | 2.315 | <0.01 | 1.055 | 30 | 0.47 | 3 |
| site 5 | Cross Bayou near ltl pigeon | 6/23/2011 | <0.01 | 12.2 | 0.126 | 2.52 | <0.01 | 0.993 | 28.3 | 0.32 | 6 |
| site 6 | BAYOU POSTILLION | 6/23/2011 | <0.01 | 12.4 | 0.123 | 1.89 | <0.01 | 1.05 | 28.1 | 0.44 | 4 |
| site 7 | OLD RIVER AT GIWW | 6/23/2011 | <0.01 | 12.8 | 0.124 | 1.2 | <0.01 | 1.09 | 27.2 | 0.43 | 3 |
| site 8 | GIWW N of OLD RIVER | 6/23/2011 | <0.01 | 12.8 | 0.127 | 2.71 | <0.01 | 1.1 | 30.2 | 0.51 | 12 |
| site 9 | STREAM | 6/23/2011 | <0.01 | 12.1 | 0.118 | | <0.01 | 1.03 | 24 | 0.43 | 4 |
| site 10 | STREAM | 6/23/2011 | <0.01 | 12.4 | 0.12 | 1.71 | <0.01 | 0.979 | 27.5 | 0.29 | 3 |
| site 11 | STREAM | 6/23/2011 | <0.01 | 12.4 | 0.131 | 4.26 | <0.01 | 0.888 | 31.4 | 0.26 | 13 |
| site 12 | PIPELINE | 6/23/2011 | <0.01 | 12.8 | 0.125 | 0.864 | <0.01 | 1.05 | 27 | 0.44 | <1 |
| site 13 | LITTLE BAYOU SORREL @ GIWW | 6/23/2011 | <0.01 | 12.1 | 0.118 | 0.723 | <0.01 | 1.1 | 24.7 | 0.44 | 3 |
| site 14 | LITTLE BAYOU SORREL @ JESSIE | 6/23/2011 | <0.01 | 12.3 | 0.118 | 0.608 | <0.01 | 1.08 | 23.5 | 0.49 | 1 |
| site 15 | DOG ISLAND PASS | 6/23/2011 | <0.01 | 12.6 | 0.14 | 3.12 | <0.01 | 0.909 | 30.4 | 0.25 | 1 |
| site 17 | FLAT LAKE WEST SIDE | 6/23/2011 | <0.01 | 12.8 | 0.127 | 2.79 | <0.01 | 0.903 | 30.5 | 0.22 | 19 |
| site 18 | FLAT LAKE @ BEAR BAYOU | 6/23/2011 | <0.01 | 11.7 | 0.119 | 0.674 | <0.01 | 1.11 | 21.6 | 0.49 | 34 |
| site 19 | FLAT LAKE EAST SIDE | 6/23/2011 | <0.01 | 12.1 | 0.12 | 1.48 | <0.01 | 1.06 | 26.3 | 0.43 | 13 |
| site 20 | INTRACOASTAL @ DOIRONS LANDING | 6/23/2011 | <0.01 | 13.1 | 0.129 | 1.86 | <0.01 | 1.08 | 29.4 | 0.45 | 14 |
| site 21 | MAIN CHANNEL BEFORE GIWW | 6/23/2011 | <0.01 | 13.5 | 0.144 | 6.04 | <0.01 | 0.882 | 37.6 | 0.25 | 72 |
| site 22 | GIWW AT FLAT LAKE | 6/23/2011 | <0.01 | 12.4 | 0.122 | 1.57 | <0.01 | 0.993 | 27.7 | 0.36 | 12 |
| site 23 | MAIN CHANNEL + GIWW | 6/23/2011 | <0.01 | 13.7 | 0.143 | 6.26 | <0.01 | 0.906 | 38.6 | 0.26 | 67 |
| site 24 | Lake Rond | 6/23/2011 | <0.01 | 13.9 | 0.146 | 6.37 | <0.01 | 0.92 | 39.4 | 0.27 | 67 |
| site 25 | Bayou Crook Chene | 6/23/2011 | <0.01 | 13.8 | 0.143 | 6.45 | <0.01 | 0.868 | 39.3 | | |
| site 33 | Grand River@ work canal | 6/23/2011 | <0.01 | 13.9 | 0.146 | 6.54 | <0.01 | 0.928 | 39.9 | 0.27 | 29 |
| site 34 | GIWW @ grand river | 6/23/2011 | <0.01 | 13.1 | 0.128 | 1.31 | <0.01 | 1.2 | 28.3 | 0.69 | 9 |
| site 35 | River | 6/23/2011 | <0.01 | 13.8 | 0.145 | 6.6 | <0.01 | 0.894 | 40 | 0.29 | 39 |
| site 36 | BAYOU BOUTTE @ LITTLE BAYOU SORREL | 6/23/2011 | <0.01 | 12.9 | 0.133 | 4.91 | <0.01 | 0.853 | 34.2 | 0.24 | 19 |
| A9 | Black bayou | 6/23/2011 | <0.01 | 11.8 | 0.114 | 0.614 | <0.01 | 1.93 | 20.4 | 1.54 | <1 |
| A10 | North drain 1 | 6/23/2011 | <0.01 | 12.8 | 0.121 | 0.786 | <0.01 | 1.71 | 23.8 | 1.34 | <1 |
| A11 | N drain 2 | 6/23/2011 | <0.01 | 13.6 | 0.136 | 0.724 | <0.01 | 1.55 | 26 | 1.07 | <1 |

| Site | Description | Date | Bromide (mg/L) | Chloride (mg/L) | Fluoride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Phosphate (mg/L) | Sulfate (mg/L) | Orthophosphate (mg/L) | TSS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A12 | Klng ditch w | 6/23/2011 | <0.01 | 12.4 | 0.117 | 0.613 | <0.01 | 1.82 | 23.3 | 1.38 | 3 |
| A13 | Klng ditch E | 6/23/2011 | <0.01 | 12.6 | 0.121 | 0.667 | <0.01 | 1.75 | 23.6 | 1.36 | 3 |
| A14 | Work canal up gr | 6/23/2011 | <0.01 | 11.7 | 0.118 | 0.543 | <0.01 | 1.79 | 23.4 | 1.32 | 27 |
| A15 | Upper flats | 6/23/2011 | <0.01 | 12.8 | 0.126 | 0.636 | <0.01 | 1.26 | 26.2 | 0.85 | 5 |
| A16 | Work canal | 6/23/2011 | <0.01 | 12.9 | 0.123 | 0.668 | <0.01 | 1.78 | 24 | 1.35 | 1 |
| Bayou stringer | Bayou Stringer | 6/23/2011 | <0.01 | 12.9 | 0.128 | 1.83 | <0.01 | 1.11 | 28.5 | 0.47 | 3 |
| Grndiv | Grand River near Atch | 6/23/2011 | <0.01 | 13.8 | 0.145 | 6.59 | <0.01 | 0.908 | 40.1 | 0.28 | |
| N end of EGL | North end of East Grand Lake | 6/23/2011 | <0.01 | 13.65 | 0.1445 | 6.01 | <0.01 | 0.9205 | 38.2 | 0.3 | |
| NASQUAN | NASQUAN - Atchafalaya River at Melville | 6/23/2011 | <0.01 | 14.1 | 0.18 | 6.94 | <0.01 | 0.882 | 41.4 | | |
| NASQUAN | NASQUAN - Lower Atchafalaya River at Morgan City | 6/23/2011 | <0.01 | 13.2 | 0.165 | 5.11 | <0.01 | 0.935 | 34.7 | | |
| NASQUAN | NASQUAN - Mississippi River at St. Francisville | 6/23/2011 | <0.01 | 13.6 | 0.185 | 7.34 | <0.01 | 0.866 | 40.8 | | |
| NASQUAN | NASQUAN - Wax Lake Outlet | 6/23/2011 | <0.01 | 13 | 0.166 | 5.79 | <0.01 | 0.879 | 34.9 | | |
| site 1 | Sorrel @ Atch | 7/7/2011 | <0.01 | 14.18 | 0.192 | 7.47 | <0.01 | 0.918 | 51.82 | | 69 |
| flood 1.5 | Indigo nr acces canal | 7/7/2011 | <0.01 | 14.43 | 0.191 | 7.55 | <0.01 | 0.828 | 52.5 | 0.19 | 85 |
| site 2 | Sorrel W of oil field drain | 7/7/2011 | <0.01 | 15.07 | 0.1975 | 8.075 | <0.01 | 0.872 | 54.915 | 0.28 | 110 |
| site 3 | Pigeon near GIWW | 7/7/2011 | <0.01 | 14.445 | 0.189 | 5.86 | <0.01 | 0.982 | 47.01 | 0.44 | 56.5 |
| site 4 | Pigeon near Big Pigeon | 7/7/2011 | <0.01 | 14.04 | 0.177 | 5.17 | <0.01 | 1.07 | 40.86 | 0.53 | 71 |
| site 5 | Cross Bayou near ltl pigeon | 7/7/2011 | <0.01 | 13.83 | 0.173 | 3.23 | <0.01 | 0.984 | 37.6 | 0.44 | 31 |
| site 6 | BAYOU POSTILLION | 7/7/2011 | <0.01 | 13.94 | 0.176 | 5.17 | <0.01 | 1.15 | 40.53 | | 126 |
| site 7 | OLD RIVER AT GIWW | 7/7/2011 | <0.01 | 14.28 | 0.18 | 1.78 | <0.01 | 1.04 | 33.01 | 0.47 | <1 |
| site 8 | GIWW N of OLD RIVER | 7/7/2011 | <0.01 | 14.18 | 0.18 | 5.24 | <0.01 | 1.16 | 41 | 0.6 | 17 |
| site 9 | STREAM | 7/7/2011 | <0.01 | 13.32 | 0.159 | 0.64 | <0.01 | 1.01 | 27.87 | 0.44 | <1 |
| site 10 | STREAM | 7/7/2011 | <0.01 | 14.2 | 0.204 | 1.09 | <0.01 | 0.886 | 36.25 | 0.34 | <1 |
| site 11 | STREAM | 7/7/2011 | <0.01 | 14.53 | 0.238 | 3.77 | <0.01 | 0.85 | 45.67 | 0.23 | 21 |
| site 12 | PIPELINE | 7/7/2011 | <0.01 | 12.9 | 0.154 | 0.855 | <0.01 | 1.06 | 28.02 | 0.5 | <1 |
| site 13 | LITTLE BAYOU SORREL @ GIWW | 7/7/2011 | <0.01 | 14.11 | 0.186 | 0.89 | <0.01 | 1.11 | 28.75 | 0.435 | 33 |
| site 14 | LITTLE BAYOU SORREL @ JESSIE | 7/7/2011 | <0.01 | 13.23 | 0.155 | 0.741 | <0.01 | 1.14 | 26.12 | 0.59 | <1 |
| site 15 | DOG ISLAND PASS | 7/7/2011 | <0.01 | 14.62 | 0.188 | 3.77 | <0.01 | 0.915 | 45.11 | 0.26 | 40 |
| site 17 | FLAT LAKE WEST SIDE | 7/7/2011 | <0.01 | 14.16 | 0.176 | 2.82 | <0.01 | 0.901 | 40.6 | 0.28 | 14 |
| site 18 | FLAT LAKE @ BEAR BAYOU | 7/7/2011 | <0.01 | 12.96 | 0.153 | 0.749 | <0.01 | 1.23 | 24.31 | 0.62 | 3 |
| site 19 | FLAT LAKE EAST SIDE | 7/7/2011 | <0.01 | 13.56 | 0.166 | 3.04 | <0.01 | 1.08 | 34.12 | 0.51 | 37 |
| site 20 | INTRACOASTAL @ DOIRONS LANDING | 7/7/2011 | <0.01 | 14.99 | 0.197 | 7.69 | <0.01 | 0.875 | 54.2 | 0.5 | 40 |
| site 21 | MAIN CHANNEL BEFORE GIWW | 7/7/2011 | <0.01 | 15.02 | 0.195 | 7.71 | <0.01 | 0.856 | 54.35 | | 110 |
| site 22 | GIWW AT FLAT LAKE | 7/7/2011 | <0.01 | 13.93 | 0.171 | 3.49 | <0.01 | 1.06 | 36.86 | 0.46 | 25 |

| Site | Description | Date | Bromide (mg/L) | Chloride (mg/L) | Fluoride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Phosphate (mg/L) | Sulfate (mg/L) | Orthophosphate (mg/L) | TSS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| site 23 | MAIN CHANNEL + GIWW | 7/7/2011 | <0.01 | 14.21 | 0.178 | 5.31 | <0.01 | 0.924 | 44.23 | | 61 |
| site 24 | Lake Rond | 7/7/2011 | <0.01 | 14.59 | 0.189 | 7.42 | <0.01 | 0.888 | 50.93 | 0.26 | 84 |
| site 26 | Lake Rond | 7/7/2011 | <0.01 | 11.16 | 0.137 | 5.43 | <0.01 | | 36.06 | 0.32 | 41 |
| site 27 | Bayou Benoit Launch | 7/7/2011 | <0.01 | 12.605 | 0.1315 | 0.6755 | <0.01 | 1.17 | 19.72 | 0.62 | <1 |
| site 28 | Buffalo Cove | 7/7/2011 | <0.01 | 14.08 | 0.176 | 6.45 | <0.01 | 0.941 | 45.68 | 0.28 | 44 |
| site 29 | Lake Fausse Pointe Cut | 7/7/2011 | <0.01 | 14.44 | 0.187 | 6.44 | <0.01 | 0.883 | 46.22 | 0.3 | 30 |
| site 30 | Grand Lake | 7/7/2011 | | | | | | | | 0.215 | 11 |
| site 33 | Grand River@ work canal | 7/7/2011 | <0.01 | 14.535 | 0.189 | 7.625 | <0.01 | 0.855 | 52.455 | 0.25 | 57.5 |
| site 34 | GIWW @ grand river | 7/7/2011 | <0.01 | 13.83 | 0.174 | 5.24 | <0.01 | 1.14 | 43.19 | 0.62 | 59 |
| site 35 | River | 7/7/2011 | <0.01 | 14.7 | 0.193 | 7.81 | <0.01 | 0.862 | 53.95 | 0.28 | 75 |
| site 37 | Blue Point Chute | 7/7/2011 | <0.01 | 14.68 | 0.191 | 7.87 | <0.01 | 0.836 | 53.66 | 0.26 | 91 |
| site 102 | Grand Lake Channel | 7/7/2011 | <0.01 | 14.16 | 0.179 | 6.46 | <0.01 | 0.9 | 45.9 | 0.29 | 33 |
| A9 | Black bayou | 7/7/2011 | <0.01 | 11.98 | 0.141 | 0.907 | <0.01 | 1.9 | 16.87 | 1.62 | <1 |
| A10 | North drain 1 | 7/7/2011 | <0.01 | 12.62 | 0.153 | 0.853 | <0.01 | 1.77 | 17.09 | 1.43 | <1 |
| A11 | N drain 2 | 7/7/2011 | <0.01 | 12.78 | 0.151 | 0.922 | <0.01 | 2 | 14.68 | 1.76 | 5 |
| A12 | Klng ditch w | 7/7/2011 | <0.01 | 11.61 | 0.131 | 0.697 | <0.01 | 2.15 | 16.2 | 1.87 | 11 |
| A13 | Klng ditch E | 7/7/2011 | <0.01 | 12.55 | 0.148 | 0.946 | <0.01 | 1.9 | 17.65 | 1.54 | 9 |
| A14 | Work canal up gr | 7/7/2011 | <0.01 | 11.72 | 0.132 | 0.699 | <0.01 | 1.82 | 19.37 | 1.43 | 17 |
| A15 | Upper flats | 7/7/2011 | <0.01 | 12.65 | 0.144 | 0.662 | <0.01 | 1.83 | 18.65 | 1.38 | 4 |
| A16 | Work canal | 7/7/2011 | <0.01 | 12.35 | 0.147 | 0.887 | <0.01 | 1.83 | 17.45 | 1.55 | 8 |
| Grndiv | Grand River near Atch | 7/7/2011 | <0.01 | 14.73 | 0.193 | 7.75 | <0.01 | 0.916 | 53.66 | 0.26 | 49 |
| N end of EGL | North end of East Grand Lake | 7/7/2011 | <0.01 | 14.945 | 0.192 | 6.495 | <0.01 | 0.8455 | 51.995 | 0.24 | 27 |
| site 1 | Sorrel @ Atch | 7/21/2011 | <0.01 | 14.57 | 0.206 | 7.01 | <0.01 | 0.802 | 64.71 | 0.26 | 79 |
| flood 1.5 | Indigo nr acces canal | 7/21/2011 | <0.01 | 14.76 | 0.214 | 6.94 | <0.01 | 0.884 | 61.11 | 0.27 | 78 |
| site 2 | Sorrel W of oil field drain | 7/21/2011 | <0.01 | 14.81 | 0.2155 | 6.935 | <0.01 | 0.881 | 60.75 | 0.3 | 78 |
| site 3 | Pigeon near GIWW | 7/21/2011 | <0.01 | 13.13 | 0.183 | 5.84 | <0.01 | 1.105 | 41.82 | 0.55 | 41 |
| site 4 | Pigeon near Big Pigeon | 7/21/2011 | <0.01 | 8.36 | 0.1 | 6.77 | <0.01 | 0.901 | 21.3 | 0.57 | 60 |
| site 5 | Cross Bayou near ltl pigeon | 7/21/2011 | <0.01 | 13.22 | 0.2 | 6.76 | <0.01 | 0.983 | 40.97 | 0.42 | 4 |
| site 6 | BAYOU POSTILLION | 7/21/2011 | <0.01 | 13.59 | 0.188 | 6.67 | <0.01 | 1.09 | 43.53 | 0.53 | 97 |
| site 7 | OLD RIVER AT GIWW | 7/21/2011 | <0.01 | 12.91 | 0.189 | 6.64 | <0.01 | 1.01 | 37.28 | 0.39 | <1 |
| site 8 | GIWW N of OLD RIVER | 7/21/2011 | <0.01 | 13.67 | 0.192 | 6.23 | <0.01 | 1.14 | 43.99 | 0.58 | 34 |
| site 9 | STREAM | 7/21/2011 | <0.01 | 13.84 | 0.179 | 6.16 | <0.01 | 0.963 | 33.76 | 0.4 | 2 |
| site 10 | STREAM | 7/21/2011 | <0.01 | 13.54 | 0.183 | 5.95 | <0.01 | 0.904 | 37.68 | 0.36 | 3 |
| site 11 | STREAM | 7/21/2011 | <0.01 | 13.71 | 0.194 | 5.77 | <0.01 | 0.863 | 43.7 | 0.24 | 25 |

| Site | Description | Date | Bromide (mg/L) | Chloride (mg/L) | Fluoride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Phosphate (mg/L) | Sulfate (mg/L) | Orthophosphate (mg/L) | TSS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| site 12 | PIPELINE | 7/21/2011 | <0.01 | 12.67 | 0.175 | 5.34 | <0.01 | 0.966 | 32.88 | 0.38 | 6 |
| site 13 | LITTLE BAYOU SORREL @ GIWW | 7/21/2011 | <0.01 | 13.535 | 0.1725 | 5.725 | <0.01 | 1.13 | 30.81 | 0.56 | <1 |
| site 14 | LITTLE BAYOU SORREL @ JESSIE | 7/21/2011 | <0.01 | 13.28 | 0.171 | 4.98 | <0.01 | 1.12 | 29.58 | 0.54 | 4 |
| site 15 | DOG ISLAND PASS | 7/21/2011 | <0.01 | 14.24 | 0.203 | 4.85 | <0.01 | 0.923 | 47.75 | 0.26 | 28 |
| site 17 | FLAT LAKE WEST SIDE | 7/21/2011 | <0.01 | 13.56 | 0.186 | 4.78 | <0.01 | 0.912 | 41.46 | 0.31 | 6 |
| site 18 | FLAT LAKE @ BEAR BAYOU | 7/21/2011 | <0.01 | 13.23 | 0.171 | 4.23 | <0.01 | 1.12 | 28.24 | 0.54 | 3 |
| site 19 | FLAT LAKE EAST SIDE | 7/21/2011 | <0.01 | 13.19 | 0.181 | 3.63 | <0.01 | 1.07 | 38.14 | 0.52 | 28 |
| site 20 | INTRACOASTAL @ DOIRONS LANDING | 7/21/2011 | <0.01 | 13.21 | 0.187 | 3.58 | <0.01 | 1.07 | 39.84 | 0.52 | 49 |
| site 21 | MAIN CHANNEL BEFORE GIWW | 7/21/2011 | <0.01 | 13.67 | 0.204 | 3.24 | <0.01 | 0.859 | 54.55 | 0.25 | 77 |
| site 22 | GIWW AT FLAT LAKE | 7/21/2011 | <0.01 | 13.28 | 0.183 | 3.07 | <0.01 | 1.04 | 40.46 | 0.46 | 19 |
| site 23 | MAIN CHANNEL + GIWW | 7/21/2011 | <0.01 | 14.22 | 0.407 | 3.02 | <0.01 | 0.829 | 57.41 | 0.28 | 83 |
| site 24 | Lake Rond | 7/21/2011 | | | | 2.53 | | | | | |
| site 25 | Bayou Crook Chene | 7/21/2011 | | | | 2.31 | | | | | |
| site 26 | Lake Rond | 7/21/2011 | <0.01 | 13.99 | 0.217 | 2.03 | <0.01 | 0.935 | 51.42 | 0.31 | 24 |
| site 27 | Bayou Benoit Launch | 7/21/2011 | <0.01 | 13.73 | 0.134 | 1.55 | <0.01 | 1.19 | 14.86 | 0.63 | 4 |
| site 28 | Buffalo Cove | 7/21/2011 | <0.01 | 13.62 | 0.186 | 0.9955 | <0.01 | 0.913 | 45.2 | 0.33 | 32 |
| site 29 | Lake Fausse Pointe Cut | 7/21/2011 | <0.01 | 13 | 0.197 | 0.652 | <0.01 | 0.901 | 42.61 | 0.34 | 36 |
| site 30 | Grand Lake | 7/21/2011 | <0.01 | 13.2 | 0.18 | 0.644 | <0.01 | 0.842 | 37.36 | | |
| site 33 | Grand River@ work canal | 7/21/2011 | <0.01 | 14.05 | 0.227 | 0.629 | <0.01 | 0.871 | 59.41 | 0.29 | 24 |
| site 34 | GIWW @ grand river | 7/21/2011 | <0.01 | 14.35 | 0.203 | 0.602 | <0.01 | 1.08 | 55.07 | 0.43 | 37 |
| site 35 | River | 7/21/2011 | <0.01 | | | 0.555 | <0.01 | | | | |
| site 36 | BAYOU BOUTTE @ LITTLE BAYOU SORREL | 7/21/2011 | <0.01 | 14.33 | 0.2055 | 5.695 | <0.01 | 0.914 | 54.69 | 0.24 | 36 |
| site 37 | Blue Point Chute | 7/21/2011 | <0.01 | 14.36 | 0.207 | | <0.01 | 0.864 | 58.74 | 0.26 | 69 |
| site 102A | Grand Lake Channel | 7/21/2011 | <0.01 | 14.3 | 0.194 | | <0.01 | 0.942 | 47.51 | 0.35 | 77 |
| site 103 | Channel | 7/21/2011 | <0.01 | 14.71 | 0.213 | | <0.01 | 0.916 | 66.28 | 0.25 | 106 |
| Grndiv | Grand River near Atch | 7/21/2011 | <0.01 | 14.51 | 0.219 | | <0.01 | 0.895 | 62.16 | 0.29 | 26 |
| N end of EGL | North end of East Grand Lake | 7/21/2011 | <0.01 | 13.96 | 0.206 | | <0.01 | 0.824 | 53.95 | 0.24 | 19 |
| site 1 | Sorrel @ Atch | 8/4/2011 | <0.01 | 11.36 | 0.23 | 5.35 | <0.01 | 0.0834 | 77.74 | 0.23 | 48 |
| flood 1.5 | Indigo nr acces canal | 8/4/2011 | <0.01 | 11.27 | 0.222 | 4.5 | <0.01 | 0.0948 | 70.14 | 0.31 | 34 |
| site 2 | Sorrel W of oil field drain | 8/4/2011 | <0.01 | 10.86 | 0.219 | 4.98 | <0.01 | | 71.94 | 0.28 | 22 |
| site 3 | Pigeon near GIWW | 8/4/2011 | <0.01 | 9.28 | 0.195 | 2.88 | <0.01 | 0.296 | 48.42 | 0.52 | 16 |
| site 4 | Pigeon near Big Pigeon | 8/4/2011 | <0.01 | 10.34 | 0.196 | 3.23 | <0.01 | 0.406 | 51.82 | 0.5 | 22 |
| site 5 | Cross Bayou near ltl pigeon | 8/4/2011 | <0.01 | 7.91 | 0.17 | 0.715 | <0.01 | 0.53 | 33.19 | 0.54 | 26 |
| site 6 | BAYOU POSTILLION | 8/4/2011 | <0.01 | 10.17 | 0.169 | 3.33 | <0.01 | 0.183 | 49.39 | 0.41 | 22 |

| Site | Description | Date | Bromide (mg/L) | Chloride (mg/L) | Fluoride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Phosphate (mg/L) | Sulfate (mg/L) | Orthophosphate (mg/L) | TSS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| site 7 | OLD RIVER AT GIWW | 8/4/2011 | <0.01 | 8.79 | 0.173 | 0.467 | <0.01 | 0.282 | 35.09 | 0.43 | 5 |
| site 8 | GIWW N of OLD RIVER | 8/4/2011 | <0.01 | 9.95 | 0.177 | 3.41 | <0.01 | 0.245 | 50.09 | 0.49 | 26 |
| site 9 | STREAM | 8/4/2011 | <0.01 | 8.91 | 0.128 |  | <0.01 | 0.0438 | 32.25 | 0.22 | 11 |
| site 10 | STREAM | 8/4/2011 | <0.01 | 8.69 | 0.172 | 0.205 | <0.01 | 0.196 | 35.14 | 0.42 | 6 |
| site 11 | STREAM | 8/4/2011 | <0.01 | 8.92 | 0.172 |  | <0.01 | 0.03111 | 38.19 | 0.27 | 2 |
| site 12 | PIPELINE | 8/4/2011 | <0.01 | 10.52 | 0.194 | 0.986 | <0.01 | 0.372 | 38.16 | 0.53 | <1 |
| site 13 | LITTLE BAYOU SORREL @ GIWW | 8/4/2011 | <0.01 | 8.72 | 0.161 |  | <0.01 | 0.332 | 28.93 | 0.53 | <1 |
| site 14 | LITTLE BAYOU SORREL @ JESSIE | 8/4/2011 | <0.01 | 8.57 | 0.158 |  | <0.01 | 0.362 | 28.72 | 0.51 | <1 |
| site 15 | DOG ISLAND PASS | 8/4/2011 | <0.01 | 9.55 | 0.186 | 1.811 | <0.01 | 0.115 | 47.88 | 0.31 | 23 |
| site 17 | FLAT LAKE WEST SIDE | 8/4/2011 | <0.01 | 8.95 | 0.168 | 1 | <0.01 | 0.176 | 38.43 | 0.32 | 17 |
| site 18 | FLAT LAKE @ BEAR BAYOU | 8/4/2011 | <0.01 | 8.27 | 0.147 |  | <0.01 | 0.298 | 26.46 | 0.41 | <1 |
| site 19 | FLAT LAKE EAST SIDE | 8/4/2011 | <0.01 | 9.68 | 0.184 | 1.81 | <0.01 | 0.312 | 41.32 | 0.45 | 29 |
| site 20 | INTRACOASTAL @ DOIRONS LANDING | 8/4/2011 | <0.01 | 9.59 | 0.181 | 2.33 | <0.01 | 0.43 | 44.39 | 0.46 | 23 |
| site 21 | MAIN CHANNEL BEFORE GIWW | 8/4/2011 | <0.01 | 11.65 | 0.235 | 5.66 | <0.01 | 0.177 | 75.66 | 0.3 | 30 |
| site 22 | GIWW AT FLAT LAKE | 8/4/2011 | <0.01 | 9.45 | 0.182 | 2.07 | <0.01 | 0.227 | 43.21 | 0.52 | 15 |
| site 23 | MAIN CHANNEL + GIWW | 8/4/2011 | <0.01 | 11.49 | 0.229 | 5.14 | <0.01 | 0.0752 | 73.82 | 0.31 | 76 |
| site 26 | Lake Rond | 8/4/2011 | <0.01 | 10.62 | 0.151 | 3.78 | <0.01 | 3.05 | 52.74 | 0.18 | 32 |
| site 27 | Bayou Benoit Launch | 8/4/2011 | <0.01 | 9.17 | 0.119 |  | <0.01 | 0.0833 | 12.51 | 0.29 | 6 |
| site 28 | Buffalo Cove | 8/4/2011 | <0.01 | 8.84 | 0.164 | 0.102 | <0.01 | 0.211 | 33.56 | 0.39 | 24 |
| site 29 | Lake Fausse Pointe Cut | 8/4/2011 | <0.01 | 11.12 | 0.201 | 4.04 | <0.01 | 0.123 | 57.73 | 0.33 | 24 |
| site 30 | Grand Lake | 8/4/2011 | <0.01 | 8.92 | 0.153 |  | <0.01 | 0.0997 | 28.66 | 0.32 | 16 |
| site 33 | Grand River@ work canal | 8/4/2011 | <0.01 | 10.34 | 0.196 | 3.27 | <0.01 | 0.467 | 51.65 | 0.63 | 30 |
| site 34 | GIWW @ grand river | 8/4/2011 | <0.01 | 11.57 | 0.235 | 5.73 | <0.01 | 0.125 | 79.51 | 0.31 | 10 |
| site 36 | BAYOU BOUTTE @ LITTLE BAYOU SORREL | 8/4/2011 | <0.01 | 10.14 | 0.201 | 2.22 | <0.01 | 0.0809 | 54.44 | 0.32 | 39 |
| site 37 | Blue Point Chute | 8/4/2011 | <0.01 | 11.41 | 0.231 | 5.27 | <0.01 | 0.0701 | 76.71 | 0.31 | 24 |
| site 102 | Grand Lake Channel | 8/4/2011 | <0.01 | 5.35 | 0.13 | 2.01 | <0.01 |  | 29.14 | 0.12 | 41 |
| site 103 | Channel | 8/4/2011 | <0.01 | 11.54 | 0.239 | 5.47 | <0.01 | 0.115 | 77.42 | 0.3 | 109 |
| A9 | Black bayou | 8/4/2011 | <0.01 | 7.13 | 0.14 | 0.899 | <0.01 | 0.822 | 16.08 | 1.02 | 17 |
| A10 | North drain 1 | 8/4/2011 | <0.01 | 8.16 | 0.142 | 0.483 | <0.01 | 1.11 | 13.36 | 1.35 | 53 |
| A11 | N drain 2 | 8/4/2011 | <0.01 | 8.02 | 0.124 | 0.226 | <0.01 | 1.24 | 10.26 | 1.37 | 20 |
| A12 | Klng ditch w | 8/4/2011 | <0.01 | 6.42 | 0.0986 |  | <0.01 | 0.629 | 9.31 | 0.81 | 2 |
| A13 | Klng ditch E | 8/4/2011 | <0.01 | 7.55 | 0.119 | 0.241 | <0.01 | 0.67 | 12.97 | 0.91 | 14 |
| A14 | Work canal up gr | 8/4/2011 | <0.01 | 7.38 | 0.113 | 0.583 | <0.01 | 1.13 | 11.51 | 0.83 | 45 |
| A15 | Upper flats | 8/4/2011 | <0.01 | 7.58 | 0.128 |  | <0.01 | 1.43 | 9.73 | 1.58 | 11 |

| Site | Description | Date | Bromide (mg/L) | Chloride (mg/L) | Fluoride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Phosphate (mg/L) | Sulfate (mg/L) | Orthophosphate (mg/L) | TSS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A16 | Work canal | 8/4/2011 | <0.01 | 7.93 | 0.0395 | 0.518 | <0.01 | 0.854 | 16.44 | 1.01 | <1 |
| Grndiv | Grand River near Atch | 8/4/2011 | <0.01 | 11.59 | 0.237 | 5.79 | <0.01 | 0.153 | 50.18 | 0.3 | 36 |
| N end of EGL | North end of East Grand Lake | 8/4/2011 | <0.01 | 10.14 | 0.186 | 0.114 | <0.01 |  | 43.16 | 0.14 | 9 |
| site 1 | Sorrel @ Atch | 9/9/2011 | <0.01 | 17.9 | 0.221 | 2.41 | <0.01 | 0.13 | 44.43 | 0.3 | 25 |
| flood 1.5 | Indigo nr acces canal | 9/9/2011 | <0.01 | 21.27 | 0.2 | 1.98 | <0.01 | 0.0627 | 42.37 | 0.37 | 28 |
| site 2 | Sorrel W of oil field drain | 9/9/2011 | <0.01 | 22.63 | 0.211 | 2.22 | <0.01 | 1.58 | 79.96 | 0.28 | 35 |
| site 3 | Pigeon near GIWW | 9/9/2011 | <0.01 | 12.1 | 0.194 | 1.76 | <0.01 | 0.0084 | 43.07 | 0.28 | 17 |
| site 4 | Pigeon near Big Pigeon | 9/9/2011 | <0.01 | 12.6 | 0.201 | 1.69 | <0.01 | 0.0434 | 43.37 | 0.23 | 24 |
| site 5 | Cross Bayou near ltl pigeon | 9/9/2011 | <0.01 | 9.01 | 0.147 | 0.569 | <0.01 | 0.138 | 35.38 | 0.3 | 31 |
| site 6 | BAYOU POSTILLION | 9/9/2011 | <0.01 | 12.57 | 0.206 | 1.56 | <0.01 | 0.0435 | 43.4 | 0.24 | 25 |
| site 7 | OLD RIVER AT GIWW | 9/9/2011 | <0.01 | 10.25 | 0.163 | 0.387 | <0.01 | 0.0883 | 63.23 | 0.26 | 16 |
| site 8 | GIWW N of OLD RIVER | 9/9/2011 | <0.01 | 11.94 | 0.193 | 1.87 | <0.01 | 0.0172 | 43.18 | 0.27 | 23 |
| site 9 | STREAM | 9/9/2011 | <0.01 | 8.01 | 0.135 |  | <0.01 | 0.102 | 26.85 | 0.31 | 16 |
| site 10 | STREAM | 9/9/2011 | <0.01 | 7.83 | 0.148 | 0.276 | <0.01 | 0.115 | 41.05 | 0.28 | 39 |
| site 11 | STREAM | 9/9/2011 | <0.01 | 10.02 | 0.179 |  | <0.01 | 0.121 | 35.75 | 0.29 | 34 |
| site 12 | PIPELINE | 9/9/2011 | <0.01 | 11.94 | 0.182 | 0.986 | <0.01 |  | 40.28 | 0.25 | 22 |
| site 13 | LITTLE BAYOU SORREL @ GIWW | 9/9/2011 | <0.01 | 8.91 | 0.135 | 0.23 | <0.01 | 0.058 | 29.64 | 0.25 | 17 |
| site 14 | LITTLE BAYOU SORREL @ JESSIE | 9/9/2011 | <0.01 | 9.42 | 0.143 | 0.2 | <0.01 |  | 43.27 | 0.27 | 31 |
| site 15 | DOG ISLAND PASS | 9/9/2011 | <0.01 | 10 | 0.161 | 0.586 | <0.01 | 0.0197 | 35.48 | 0.25 | 35 |
| site 17 | FLAT LAKE WEST SIDE | 9/9/2011 | <0.01 | 9.71 | 0.146 | 0.421 | <0.01 | 0.0687 | 33.22 | 0.26 | 24 |
| site 18 | FLAT LAKE @ BEAR BAYOU | 9/9/2011 | <0.01 | 9.44 | 0.141 | 0.17 | <0.01 | 0.0408 | 31.81 | 0.26 | 7 |
| site 19 | FLAT LAKE EAST SIDE | 9/9/2011 | <0.01 | 11.81 | 0.172 | 1.18 | <0.01 | 0.0413 | 40.53 | 0.25 | 31 |
| site 20 | INTRACOASTAL @ DOIRONS LANDING | 9/9/2011 | <0.01 | 11.87 | 0.191 | 1.39 | <0.01 | 0.0621 | 42.07 | 0.25 | 26 |
| site 21 | MAIN CHANNEL BEFORE GIWW | 9/9/2011 | <0.01 | 21 | 0.22 | 2.28 | <0.01 | 0.0741 | 43.06 | 0.31 | 31 |
| site 22 | GIWW AT FLAT LAKE | 9/9/2011 | <0.01 | 11.54 | 0.324 | 1.3 | <0.01 |  | 41.08 | 0.24 | 20 |
| site 23 | MAIN CHANNEL + GIWW | 9/9/2011 | <0.01 | 21.33 | 0.216 | 2.3 | <0.01 | 0.071 | 52.1 | 0.3 | 24 |
| site 24 | Lake Rond | 9/9/2011 | <0.01 | 24.24 | 0.216 | 2.11 | <0.01 |  | 50.1 | 0.3 | 17 |
| site 25 | Bayou Crook Chene | 9/9/2011 | <0.01 | 20.2 | 0.229 | 2.39 | <0.01 | 0.095 | 44.93 | 0.33 | 23 |
| site 26 | Lake Rond | 9/9/2011 | <0.01 | 19.55 | 0.213 | 1.705 | <0.01 | 0.06315 | 61.29 | 0.265 | 18 |
| site 27 | Bayou Benoit Launch | 9/9/2011 | <0.01 | 10.21 | 0.15 | 0.161 | <0.01 |  | 48.73 | 0.115 | 15.5 |
| site 29 | Lake Fausse Pointe Cut | 9/9/2011 | <0.01 | 13.44 | 0.2 | 1.12 | <0.01 | 0.0806 | 77.57 | 0.36 | 13 |
| site 33 | Grand River@ work canal | 9/9/2011 | <0.01 | 17.13 | 0.224 | 2.39 | <0.01 | 0.0501 | 44.3 | 0.34 | 22 |
| site 34 | GIWW @ grand river | 9/9/2011 | <0.01 | 23.3 | 0.213 | 2.12 | <0.01 | 0.0879 | 44.05 | 0.26 | 21 |
| site 35 | River | 9/9/2011 | <0.01 | 17.36 | 0.224 | 2.37 | <0.01 | 0.101 | 44.28 | 0.32 | 17 |

| Site | Description | Date | Bromide (mg/L) | Chloride (mg/L) | Fluoride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Phosphate (mg/L) | Sulfate (mg/L) | Orthophosphate (mg/L) | TSS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| site 36 | BAYOU BOUTTE @ LITTLE BAYOU SORREL | 9/9/2011 | <0.01 | 15.91 | 0.204 | 1.82 | <0.01 | 0.0218 | 79.19 | 0.29 | 59 |
| A9 | Black bayou | 9/9/2011 | <0.01 | 3.72 | 0.0853 | 2.26 | <0.01 | 0.15 | 27.78 | 0.44 | 20 |
| A11 | N drain 2 | 9/9/2011 | <0.01 | 3.76 | 0.0517 | | <0.01 | 0.0047 | 32.36 | 0.24 | 10 |
| A12 | Klng ditch w | 9/9/2011 | <0.01 | 6.69 | 0.057 | | <0.01 | | 42.86 | 0.2 | 4 |
| A13 | Klng ditch E | 9/9/2011 | <0.01 | 4.94 | 0.0778 | 2.27 | <0.01 | 0.0284 | 33.2 | 0.29 | 25 |
| A16 | Work canal | 9/9/2011 | <0.01 | 4.07 | 0.0835 | 1.81 | <0.01 | 0.104 | 29.74 | 0.33 | 17 |
| Grndiv | Grand River near Atch | 9/9/2011 | <0.01 | 16.15 | 0.224 | 2.43 | <0.01 | 0.0517 | 43.76 | 0.27 | 21 |
| N end of EGL | North end of East Grand Lake | 9/9/2011 | <0.01 | 9.16 | 0.158 | 0.39 | <0.01 | | 35.58 | 0.21 | 33 |
| site 6 | BAYOU POSTILLION | 10/12/2011 | <0.01 | 14.07 | 0.215 | 1.77 | <0.01 | 0.0259 | 84.01 | 0.25 | 17 |
| site 7 | OLD RIVER AT GIWW | 10/12/2011 | <0.01 | 11.39 | 0.209 | 0.512 | <0.01 | | 76.77 | 0.16 | 9 |
| site 8 | GIWW N of OLD RIVER | 10/12/2011 | <0.01 | 13.525 | 0.2145 | 1.715 | <0.01 | 0.0275 | 83.425 | 0.27 | 13 |
| site 9 | STREAM | 10/12/2011 | <0.01 | 11.15 | 0.196 | 0.287 | <0.01 | | 71.74 | 0.14 | 14 |
| site 10 | STREAM | 10/12/2011 | <0.01 | 9.61 | 0.19 | 0.214 | <0.01 | 0.0958 | 67.81 | 0.24 | 27 |
| site 11 | STREAM | 10/12/2011 | <0.01 | 9.61 | 0.188 | 0.192 | <0.01 | 0.122 | 67.72 | 0.35 | 21 |
| site 12 | PIPELINE | 10/12/2011 | <0.01 | 3.37 | 0.209 | 0.108 | <0.01 | 0.0094 | 75.5 | 0.15 | 55 |
| site 13 | LITTLE BAYOU SORREL @ GIWW | 10/12/2011 | <0.01 | 13.83 | 0.206 | 0.662 | <0.01 | | 77.09 | 0.15 | 17 |
| site 14 | LITTLE BAYOU SORREL @ JESSIE | 10/12/2011 | <0.01 | 15.03 | 0.203 | 0.527 | <0.01 | | 74.55 | 0.14 | 17 |
| site 15 | DOG ISLAND PASS | 10/12/2011 | <0.01 | 10.38 | 0.218 | 0.577 | <0.01 | | 74.55 | 0.19 | 48 |
| site 17 | FLAT LAKE WEST SIDE | 10/12/2011 | <0.01 | 13.53 | 0.213 | 0.856 | <0.01 | | 79.99 | 0.19 | 29 |
| site 18 | FLAT LAKE @ BEAR BAYOU | 10/12/2011 | <0.01 | 9.61 | 0.216 | 0.314 | <0.01 | | 73.25 | 0.18 | 10 |
| site 19 | FLAT LAKE EAST SIDE | 10/12/2011 | <0.01 | 13.885 | 0.222 | 1.45 | <0.01 | 0.032 | 84.535 | 0.22 | 44 |
| site 20 | INTRACOASTAL @ DOIRONS LANDING | 10/12/2011 | <0.01 | 12.89 | 0.215 | 1.4 | <0.01 | | 81.47 | 0.31 | 27 |
| site 21 | MAIN CHANNEL BEFORE GIWW | 10/12/2011 | <0.01 | 13.31 | 0.214 | 1.76 | <0.01 | 0.0275 | 81.95 | 0.26 | 14 |
| site 22 | GIWW AT FLAT LAKE | 10/12/2011 | <0.01 | 13.7 | 0.22 | 1.41 | <0.01 | 0.019 | 83.62 | 0.14 | 25 |
| site 23 | MAIN CHANNEL + GIWW | 10/12/2011 | <0.01 | 12.62 | 0.224 | 0.936 | <0.01 | 0.0066 | 82.82 | 0.18 | 19 |
| site 24 | Lake Rond | 10/12/2011 | <0.01 | 11.49 | 0.191 | 1.45 | <0.01 | 0.0058 | 68.3 | 0.2 | 17 |
| site 25 | Bayou Crook Chene | 10/12/2011 | <0.01 | 15.06 | 0.218 | 1.92 | <0.01 | 0.0052 | 87.8 | 0.23 | 38 |
| site 26 | Lake Rond | 10/12/2011 | <0.01 | 13.41 | 0.208 | 1.67 | <0.01 | 0.044 | 77.93 | 0.27 | 24 |
| site 27 | Bayou Benoit Launch | 10/12/2011 | <0.01 | 10.1 | 0.167 | 0.174 | <0.01 | | 44.84 | 0.11 | 11 |
| site 28 | Buffalo Cove | 10/12/2011 | <0.01 | 13.065 | 0.176 | 0.106 | <0.01 | | 54.72 | 0.15 | 38 |
| site 29 | Lake Fausse Pointe Cut | 10/12/2011 | <0.01 | 12.95 | 0.21 | 1.5 | <0.01 | 0.0171 | 77.55 | 0.24 | 23 |
| site 30 | Grand Lake | 10/12/2011 | <0.01 | 11.63 | 0.206 | 0.346 | <0.01 | 0.187 | 75.36 | 0.29 | 39 |
| site 35 | River | 10/12/2011 | <0.01 | 13.93 | 0.216 | 1.71 | <0.01 | 0.0143 | 86.92 | 0.23 | 14 |
| site 36 | BAYOU BOUTTE @ LITTLE BAYOU SORREL | 10/12/2011 | <0.01 | 14.2 | 0.219 | 0.505 | <0.01 | 0.136 | 80.56 | 0.33 | 40 |

| Site | Description | Date | Bromide (mg/L) | Chloride (mg/L) | Fluoride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Phosphate (mg/L) | Sulfate (mg/L) | Orthophosphate (mg/L) | TSS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| site 37 | Blue Point Chute | 10/12/2011 | <0.01 | 14.98 | 0.22 | 1.87 | <0.01 | 0.0026 | 89.65 | 0.24 | 21 |
| site 102 | Grand Lake Channel | 10/12/2011 | <0.01 | 12.93 | 0.21 | 1.47 | <0.01 | | 77.36 | 0.18 | 27 |
| site 103 | Channel | 10/12/2011 | <0.01 | 14.75 | 0.218 | 1.9 | <0.01 | 0.022 | 87.68 | 0.24 | 30 |

# Table C2. Water Analyses by Prof. White at LSU

| Date Sampled | Sample ID | LAB ID | SRP (mg-P/L) | NOx (mg-N/L) | NH4+ (mg-N/L) |
|---|---|---|---|---|---|
| 5/19/2011 | Site 1 | A-001 | 0.024 | 1.312 | 0 |
| 5/19/2011 | Site 3 | A-002 | 0.0318 | 0.671 | 0 |
| 5/19/2011 | Site 4 | A-003 | 0.0292 | 2.237 | 0 |
| 5/19/2011 | Site 8 | A-004 | 0.0302 | 0.839 | 0 |
| 5/19/2011 | Site 9 | A-005 | 0.0285 | 0.175 | 0.03 |
| 5/19/2011 | Site 13 | A-006 | 0.0365 | 0.164 | 0.003 |
| 5/19/2011 | Site 14 | A-007 | 0.0229 | 0.74 | 0 |
| 5/19/2011 | Site 17 | A-008 | 0.0242 | 0.969 | 0 |
| 5/19/2011 | Site 19 | A-009 | 0.0286 | 0.457 | 0 |
| 5/19/2011 | Site 20 | A-010 | 0.0287 | 0.48 | 0 |
| 5/19/2011 | Site 21 | A-011 | 0.027 | 0.921 | 0 |
| 5/19/2011 | Site 22 | A-012 | 0.0288 | 0.435 | 0.18 |
| 5/19/2011 | Site 23 | A-013 | 0.0272 | 0.634 | 0 |
| 5/19/2011 | Site 25 | A-014 | 0.029 | 1.204 | 0 |
| 5/19/2011 | Site 33 | A-015 | 0.0272 | 1.576 | 0 |
| 5/19/2011 | Site 34 | A-016 | 0.0232 | 1.002 | 0 |
| 5/19/2011 | Site 35 | A-017 | 0.031 | 1.18 | 0 |
| 5/19/2011 | Site 36 | A-018 | 0.0202 | 1.236 | 0 |
| 5/19/2011 | ACT 87 | A-019 | 0.0233 | 1.052 | 0 |
| 5/19/2011 | Murphy Lake | A-020 | 0.0215 | 1.104 | 0 |
| 5/19/2011 | Site 2 | A-021 | 0.0368 | 0.622 | 0.042 |
| 5/19/2011 | Site 5 | A-022 | 0.0267 | 0.768 | 0 |
| 5/19/2011 | Site 7 | A-023 | 0.0351 | 0.327 | 0 |
| 5/19/2011 | Site 9 | A-024 | 0.028 | 0.17 | 0.026 |
| 5/19/2011 | Site 10 | A-025 | 0.0364 | 0.847 | 0 |
| 5/19/2011 | Site 12 | A-026 | 0.037 | 0.301 | 0.02 |
| 5/19/2011 | Site 15 | A-027 | 0.0279 | 0.723 | 0 |
| 5/19/2011 | Site 18 | A-028 | 0.0233 | 0.24 | 0.063 |
| 5/19/2011 | Site 24 | A-029 | 0.0347 | 1.272 | 0 |
| 5/19/2011 | Site A26 | A-030 | 0.0306 | 1.054 | 0 |
| 5/19/2011 | Site A27 | A-031 | 0.0288 | 1.068 | 0 |
| 5/19/2011 | Site A28 | A-032 | 0.0575 | 0.322 | 0 |
| 5/19/2011 | Site A29 | A-033 | 0.0313 | 1.036 | 0 |
| 5/19/2011 | Site A30 | A-034 | 0.0327 | 0.804 | 0 |
| 5/19/2011 | Site A101 | A-035 | 0.0298 | 0.839 | 0 |
| 5/19/2011 | Site A102 | A-036 | 0.0335 | 0.89 | 0 |
| 5/19/2011 | Site B26 | A-037 | 0.0292 | 0.984 | 0 |
| 5/19/2011 | Site B27 | A-038 | 0.0299 | 1.076 | 0 |
| 5/19/2011 | Site B28 | A-039 | 0.0581 | 0.389 | 0 |
| 5/19/2011 | Site B29 | A-040 | 0.0315 | 0.988 | 0 |
| 5/19/2011 | Site B30 | A-040 A | 0.0307 | 0.624 | 0 |
| 5/19/2011 | Site B101 | A-041 | 0.026 | 0.759 | 0 |
| 5/19/2011 | Site B102 | A-042 | 0.0279 | 0.787 | 0 |
| 5/26/2011 | Site 1 | A-043 | 0.0346 | 1.23 | 0 |
| 5/26/2011 | Site 3 | A-044 | 0.0433 | 0.514 | 0 |
| 5/26/2011 | Site 4 | A-045 | 0.0492 | 0.721 | 0 |
| 5/26/2011 | Site 6 | A-046 | 0.0081 | 0.818 | 0 |
| 5/26/2011 | Site 8 | A-047 | 0.0095 | 0.952 | 0 |
| 5/26/2011 | Site 9 | A-048 | 0 | 0.694 | 0 |
| 5/26/2011 | Site 13 | A-049 | 0.0203 | 0.695 | 0 |
| 5/26/2011 | Site 17 | A-050 | 0 | 1.043 | 0 |
| 5/26/2011 | Site 19 | A-051 | 0.0009 | 0.863 | 0 |
| 5/26/2011 | Site 20 | A-052 | 0 | 1.274 | 0 |
| 5/26/2011 | Site 21 | A-053 | 0 | 1.136 | 0 |

| Date Sampled | Sample ID | LAB ID | SRP (mg-P/L) | NOx (mg-N/L) | NH4+ (mg-N/L) |
|---|---|---|---|---|---|
| 5/26/2011 | Site 22 | A-054 | 0 | 0.671 | 0 |
| 5/26/2011 | Site 23 | A-055 | 0.0094 | 1.144 | 0 |
| 5/26/2011 | Site 25 | A-056 | 0.0035 | 1.265 | 0 |
| 5/26/2011 | Site 26 | A-057 | 0.0041 | 1.326 | 0 |
| 5/26/2011 | Site 27 | A-058 | 0.0059 | 0.769 | 0 |
| 5/26/2011 | Site 28 | A-059 | 0 | 1.661 | 0 |
| 5/26/2011 | Site 30 | A-060 | 0.0012 | 0.912 | 0 |
| 5/26/2011 | Site 33 | A-061 | 0.0319 | 1.026 | 0 |
| 5/26/2011 | Site 34 | A-062 | 0.0206 | 1.127 | 0 |
| 5/26/2011 | Site 35 | A-063 | 0.0077 | 1.676 | 0.023 |
| 5/26/2011 | Site 36 | A-064 | 0.0155 | 2.091 | 0 |
| 5/26/2011 | Site 37 | A-065 | 0.0171 | 1.757 | 0 |
| 5/26/2011 | Site 101 | A-066 | 0.0088 | 1.817 | 0 |
| 5/26/2011 | Site 102 | A-067 | 0.0045 | 1.709 | 0 |
| 5/26/2011 | Site 3A-9 | A-068 | 0.0324 | 1.084 | 0 |
| 5/26/2011 | Site 3A-10 | A-069 | 0.0233 | 0 | 0 |
| 5/26/2011 | Site 3A-11 | A-070 | 0.0219 | 1.191 | 0 |
| 5/26/2011 | Site 3A-12 | A-071 | 0.0181 | 1.233 | 0 |
| 5/26/2011 | Site 3A-13 | A-072 | 0.0151 | 1.339 | 0 |
| 5/26/2011 | Site 3A-14 | A-073 | 0.0321 | 0.827 | 0 |
| 5/26/2011 | Site 3A-15 | A-074 | 0.0094 | 1.21 | 0 |
| 5/26/2011 | Site 3A-16 | A-075 | 0.016 | 0.991 | 0 |
| 5/26/2011 | Grand River | A-076 | 0.0659 | 0.644 | 0.01 |
| 5/26/2011 | GA Cut X Buff Cove | A-077 | 0.0025 | 1.048 | 0 |
| 5/26/2011 | Northend of Grand Lake | A-078 | 0.001 | 1.287 | 0.102 |
| 5/26/2011 | Gas Pipeline | A-079 | 0.0439 | 0.662 | 0 |
| 5/26/2011 | Site 7 | A-080 | 0 | 0.689 | 0 |
| 5/26/2011 | Site 10 | A-081 | 0 | 0.932 | 0 |
| 5/26/2011 | Site 11 | A-082 | 0 | 1.091 | 0 |
| 5/26/2011 | Site 12 | A-083 | 0.0093 | 0.499 | 0 |
| 5/26/2011 | Site 14 | A-084 | 0 | 0.728 | 0 |
| 5/26/2011 | Site 15 | A-085 | 0 | 0.74 | 0 |
| 5/26/2011 | Site 18 | A-086 | 0 | 0.94 | 0 |
| 5/26/2011 | Site C5 | A-087 | 0.0167 | 0.778 | 0 |
| 5/26/2011 | Site B2 | A-088 | 0.0078 | 0.88 | 0 |
| 5/26/2011 | No Label | A-089 | 0.1544 | 1.084 | 0.023 |
| 6/2/2011 | Site 3 Flood | A-090 | 0.0157 | 0.611 | 0 |
| 6/2/2011 | Site 3B | A-091 | 0.005 | 0.864 | 0 |
| 6/2/2011 | Site 4 | A-092 | 0.0222 | 0.542 | 0 |
| 6/2/2011 | Site 6 | A-093 | 0.0214 | 0.803 | 0 |
| 6/2/2011 | Site 8 | A-094 | 0.0242 | 0.9 | 0 |
| 6/2/2011 | Site 9 | A-095 | 0.0335 | 0.368 | 0 |
| 6/2/2011 | Site 13 | A-096 | 0.0149 | 0.492 | 0 |
| 6/2/2011 | Site 14 | A-097 | 0.0266 | 0.284 | 0 |
| 6/2/2011 | Site 17 | A-098 | 0 | 0.729 | 0 |
| 6/2/2011 | Site 19 | A-099 | 0.0177 | 0.591 | 0 |
| 6/2/2011 | Site 20 | A-100 | 0.0105 | 0.62 | 0 |
| 6/2/2011 | Site 22 | A-101 | 0.0095 | 0.627 | 0 |
| 6/2/2011 | Site 23 | A-102 | 0 | 0.805 | 0 |
| 6/2/2011 | Site 24 | A-103 | 0.0087 | 0.795 | 0 |
| 6/2/2011 | Site 25 | A-104 | 0.0061 | 1.005 | 0 |
| 6/2/2011 | Site 27 | A-105 | 0 | 1 | 0 |
| 6/2/2011 | Site 35 | A-106 | 0.0074 | 0.935 | 0 |
| 6/2/2011 | 4A11 | A-107 | 0.0258 | 0.806 | 0 |
| 6/2/2011 | 4A12 | A-108 | 0.0271 | 0.775 | 0 |

| Date Sampled | Sample ID | LAB ID | SRP (mg-P/L) | NOx (mg-N/L) | NH4+ (mg-N/L) |
|---|---|---|---|---|---|
| 6/2/2011 | 4A13 | A-109 | 0.0212 | 0.828 | 0 |
| 6/2/2011 | 4A15 | A-110 | 0.0203 | 0.788 | 0 |
| 6/2/2011 | N. end of EGL | A-111 | 0.0277 | 1.009 | 0 |
| 6/2/2011 | Kraus upper Grand Launch | A-112 | 0.0411 | 0.81 | 0 |
| 6/2/2011 | Kraus upper Grand @ Atch. | A-113 | 0.1284 | 0.352 | 0 |
| 6/2/2011 | Kraus Grand Rivet | A-114 | 0.0483 | 0.664 | 0.082 |
| 6/2/2011 | 26 GA Cut X Grand Bayou | A-115 | 0.0107 | 0.816 | 0 |
| 6/2/2011 | 27 B.Benoit Launch | A-116 | 0.0246 | 0.76 | 0 |
| 6/2/2011 | 28 Buffalo Cove | A-117 | 0 | 0.833 | 0 |
| 6/2/2011 | 29 GA cut X Buffalo Cove | A-118 | 0.017 | 0.674 | 0 |
| 6/2/2011 | 30 Grand Lake | A-119 | 0.008 | 0.666 | 0 |
| 6/2/2011 | 101 Grand Lake | A-120 | 0.0052 | 0.653 | 0 |
| 6/2/2011 | 37 Blue Point Chute | A-121 | 0.0057 | 0.728 | 0 |
| 6/2/2011 | 102 Grand Lake | A-122 | 0.0078 | 0.761 | 0 |
| 6/2/2011 | Site 7 | A-123 | 0.0115 | 0.724 | 0 |
| 6/2/2011 | Site 10 | A-124 | 0 | 0.615 | 0 |
| 6/2/2011 | Site 11 | A-125 | 0.0041 | 0.737 | 0 |
| 6/2/2011 | Site 12 | A-126 | 0.0125 | 0.523 | 0 |
| 6/2/2011 | Site 15 | A-127 | 0 | 0.709 | 0 |
| 6/2/2011 | Site 18 | A-128 | 0.01 | 0.383 | 0 |
| 6/2/2011 | Site 24 | A-129 | 0.0534 | 0.826 | 0 |
| 6/2/2011 | Site C5 | A-130 | 0.0225 | 0.533 | 0 |
| 6/2/2011 | 4A9 | A-131 | 0.0517 | 0.834 | 0 |
| 6/2/2011 | 4A10 | A-132 | 0.0469 | 0.71 | 0 |
| 6/2/2011 | 4A14 | A-133 | 0.0343 | 0.594 | 0 |
| 6/2/2011 | 4A16 | A-134 | 0.0276 | 0.805 | 0 |
| 6/9/2011 | Site 13 | A-135 | 0.042 | 0.336 | 0 |
| 6/9/2011 | Site 14 | A-136 | 0.0516 | 0.307 | 0 |
| 6/9/2011 | Site 17 | A-137 | 0.0204 | 0.556 | 0 |
| 6/9/2011 | Site 19 | A-138 | 0.0366 | 0.722 | 0 |
| 6/9/2011 | Site 20 | A-139 | 0.0294 | 0.365 | 0 |
| 6/9/2011 | Site 21 | A-140 | 0.0297 | 1.122 | 0 |
| 6/9/2011 | Site 22 | A-141 | 0.0359 | 0.351 | 0 |
| 6/9/2011 | Site 23 | A-142 | 0.013 | 0.768 | 0 |
| 6/9/2011 | Site 25 | A-143 | 0.0091 | 0.897 | 0 |
| 6/9/2011 | Site 26 | A-144 | 0.0152 | 0.885 | 0 |
| 6/9/2011 | Site 27 | A-145 | 0.0187 | 0.725 | 0 |
| 6/9/2011 | Site 28 | A-146 | 0.0045 | 0.43 | 0 |
| 6/9/2011 | Site 29 | A-147 | 0.0239 | 0.778 | 0 |
| 6/9/2011 | Site 30 | A-148 | 0.0218 | 0.682 | 0 |
| 6/9/2011 | Site 33 | A-149 | 0.1921 | 0.569 | 0 |
| 6/9/2011 | Site 34 | A-150 | 0.0972 | 0.572 | 0 |
| 6/9/2011 | Site 35 | A-151 | 0.0169 | 1.152 | 0 |
| 6/9/2011 | Site 36 | A-152 | 0.0075 | 0.873 | 0 |
| 6/9/2011 | Site 101 | A-153 | 0.0187 | 0.745 | 0 |
| 6/9/2011 | Site 102 | A-154 | 0 | 0.853 | 0 |
| 6/9/2011 | 4A 9 | A-155 | 0.1641 | 0.4 | 0 |
| 6/9/2011 | 4A 11 | A-156 | 0.066 | 0.648 | 0 |
| 6/9/2011 | 4A 12 | A-157 | 0.0563 | 0.644 | 0 |
| 6/9/2011 | 4A 13 | A-158 | 0.0566 | 0.792 | 0 |
| 6/9/2011 | 4A 15 | A-159 | 0.0325 | 0.487 | 0 |
| 6/9/2011 | Site 1 | A-160 | 0.021 | 1.333 | 0 |
| 6/9/2011 | Site B2 | A-161 | 0 | 0.159 | 0 |
| 6/9/2011 | Site 3 | A-162 | 0.0409 | 0.349 | 0 |
| 6/9/2011 | Site 4 | A-163 | 0.0261 | 0.357 | 0 |

| Date Sampled | Sample ID | LAB ID | SRP (mg-P/L) | NOx (mg-N/L) | NH4+ (mg-N/L) |
|---|---|---|---|---|---|
| 6/9/2011 | Site C5 | A-164 | 0 | 0 | 0 |
| 6/9/2011 | Site 6 | A-165 | 0.0455 | 0.348 | 0 |
| 6/9/2011 | Site 7 | A-166 | 0.0168 | 0.362 | 0 |
| 6/9/2011 | Site 8 | A-167 | 0.0453 | 0.564 | 0 |
| 6/9/2011 | Site 9 | A-168 | 0.0618 | 0.131 | 0.015 |
| 6/9/2011 | Site 10 | A-169 | 0.0083 | 0.65 | 0 |
| 6/9/2011 | Site 11 | A-170 | 0.0096 | 1.055 | 0 |
| 6/9/2011 | Site 12 | A-171 | 0.031 | 0.37 | 0 |
| 6/9/2011 | Site 15 | A-172 | 0.0086 | 0.628 | 0 |
| 6/9/2011 | Site 18 | A-173 | 0.0341 | 0.181 | 0 |
| 6/9/2011 | Site 24 | A-174 | 0.0067 | 0.953 | 0 |
| 6/9/2011 | Flood 1.5 | A-175 | 0.0304 | 0.643 | 0 |
| 6/9/2011 | Grndriv | A-176 | 0.2294 | 0.351 | 0 |
| 6/9/2011 | N end of Egl | A-177 | 0.026 | 0.845 | 0 |
| 6/9/2011 | 4A10 | A-178 | 0.1164 | 0.535 | 0 |
| 6/9/2011 | 4A14 | A-179 | 0.0994 | 0.256 | 0 |
| 6/9/2011 | 4A16 | A-180 | 0.0585 | 0.69 | 0 |
| 6/16/2011 | Site 1 | A-181 | 0 | 0.623 | 0.041 |
| 6/16/2011 | B2 | A-182 | 0.0722 | 0.373 | 0 |
| 6/16/2011 | Site 3 | A-183 | 0.0813 | 0.458 | 0 |
| 6/16/2011 | Site 4 | A-184 | 0.0778 | 0.226 | 0.025 |
| 6/16/2011 | C5 | A-185 | 0.1088 | 0.43 | 0 |
| 6/16/2011 | Site 6 | A-186 | 0.1197 | 0.208 | 0 |
| 6/16/2011 | Site 7 | A-187 | 0.1054 | 0.166 | 0 |
| 6/16/2011 | Site 8 | A-188 | 0.1151 | 0.338 | 0 |
| 6/16/2011 | Site 9 | A-189 | 0.1202 | 0.095 | 0 |
| 6/16/2011 | Site 10 | A-190 | 0.0744 | 0.433 | 0 |
| 6/16/2011 | Site 11 | A-191 | 0.0644 | 0.901 | 0 |
| 6/16/2011 | Site 12 | A-192 | 0.0868 | 0.189 | 0 |
| 6/16/2011 | Site 13 | A-193 | 0.102 | 0.156 | 0.033 |
| 6/16/2011 | Site 14 | A-194 | 0.089 | 0.145 | 0 |
| 6/16/2011 | Site 15 | A-195 | 0.0627 | 0.723 | 0 |
| 6/16/2011 | Site 17 | A-196 | 0.0626 | 0.624 | 0 |
| 6/16/2011 | Site 18 | A-197 | 0.1092 | 0.037 | 0 |
| 6/16/2011 | Site 19 | A-198 | 0.0945 | 0.199 | 0 |
| 6/16/2011 | Site 20 | A-199 | 0.0966 | 0.223 | 0 |
| 6/16/2011 | Site 21 | A-200 | 0.0541 | 0.1383 | 0 |
| 6/16/2011 | Site 22 | A-201 | 0.0919 | 0.25 | 0 |
| 6/16/2011 | Site 23 | A-202 | 0.0534 | 1.484 | 0 |
| 6/16/2011 | Site 24 | A-203 | 0.0612 | 1.658 | 0 |
| 6/16/2011 | Site 25 | A-204 | 0.06 | 1.514 | 0 |
| 6/16/2011 | Site 26 | A-205 | 0.0599 | 1.122 | 0 |
| 6/16/2011 | Site 27 | A-206 | 0.0587 | 0.735 | 0 |
| 6/16/2011 | Site 28 | A-207 | 0.0665 | 0.902 | 0 |
| 6/16/2011 | Site 29 | A-208 | 0.0617 | 1.05 | 0 |
| 6/16/2011 | Site 30 | A-209 | 0.0617 | 0.66 | 0 |
| 6/16/2011 | Site 33 | A-210 | 0.0593 | 1.364 | 0 |
| 6/16/2011 | Site 34 | A-211 | 0.1458 | 0.27 | 0 |
| 6/16/2011 | Site 35 | A-212 | 0.0589 | 1.853 | 0 |
| 6/16/2011 | Site 36 | A-213 | 0.0728 | 0.868 | 0 |
| 6/16/2011 | Site 37 | A-214 | 0.0531 | 1.633 | 0 |
| 6/16/2011 | Site 102 | A-215 | 0.0623 | 1.047 | 0 |
| 6/16/2011 | Site 103 | A-216 | 0.0544 | 1.387 | 0 |
| 6/16/2011 | A9 | A-217 | 0.3791 | 0.405 | 0.244 |
| 6/16/2011 | A10 | A-218 | 0.4325 | 0 | 0.151 |

| Date Sampled | Sample ID | LAB ID | SRP (mg-P/L) | NOx (mg-N/L) | NH4+ (mg-N/L) |
|---|---|---|---|---|---|
| 6/16/2011 | A11 | A-219 | 0.2001 | 0.292 | 0 |
| 6/16/2011 | A12 | A-220 | 0.2378 | 0.198 | 0.049 |
| 6/16/2011 | A13 | A-221 | 0.1602 | 0.277 | 0.112 |
| 6/16/2011 | A14 | A-222 | 0.057 | 1.39 | 0 |
| 6/16/2011 | A15 | A-223 | 0.1024 | 0.15 | 0 |
| 6/16/2011 | A16 | A-224 | 0.2823 | 0.166 | 0 |
| 6/16/2011 | Flood 1.5 | A-225 | 0.0659 | 1.052 | 0 |
| 6/16/2011 | Grndriv | A-226 | 0.0557 | 1.741 | 0 |
| 6/16/2011 | Northend of EGL | A-227 | 0.0593 | 1.26 | 0 |
| 6/23/2011 | Site 1 | A-228 | 0.0664 | 1.624 | 0 |
| 6/23/2011 | Flood 1.5 | A-229 | 0.0751 | 1.615 | 0 |
| 6/23/2011 | B2 | A-230 | 0.0694 | 1.569 | 0 |
| 6/23/2011 | Site 3 | A-231 | 0.1464 | 0.712 | 0.01 |
| 6/23/2011 | Site 4 | A-232 | 0.1291 | 0.444 | 0.006 |
| 6/23/2011 | C5 | A-233 | 0.0947 | 0.549 | 0.026 |
| 6/23/2011 | Site 6 | A-234 | 0.1269 | 0.427 | 0.048 |
| 6/23/2011 | Site 7 | A-235 | 0.1349 | 0.171 | 0.02 |
| 6/23/2011 | Site 8 | A-236 | 0.1388 | 0.706 | 0 |
| 6/23/2011 | Site 9 | A-237 | 0.1264 | 0 | 0 |
| 6/23/2011 | Site 10 | A-238 | 0.0853 | 0.361 | 0 |
| 6/23/2011 | Site 11 | A-239 | 0.0607 | 1.269 | 0 |
| 6/23/2011 | Site 12 | A-240 | 0.119 | 0.034 | 0 |
| 6/23/2011 | Site 13 | A-241 | 0.1311 | 0 | 0 |
| 6/23/2011 | Site 14 | A-242 | 0.1404 | 0.005 | 0 |
| 6/23/2011 | Site 15 | A-243 | 0.0534 | 0.624 | 0 |
| 6/23/2011 | Site 17 | A-244 | 0.0642 | 0.616 | 0 |
| 6/23/2011 | Site 18 | A-245 | 0.1432 | 0 | 0 |
| 6/23/2011 | Site 19 | A-246 | 0.1196 | 0.255 | 0 |
| 6/23/2011 | Site 20 | A-247 | 0.125 | 0.342 | 0 |
| 6/23/2011 | Site 21 | A-248 | 0.0617 | 1.536 | 0 |
| 6/23/2011 | Site 22 | A-249 | 0.1032 | 0.291 | 0 |
| 6/23/2011 | Site 23 | A-250 | 0.0622 | 1.832 | 0 |
| 6/23/2011 | Site 24 | A-251 | 0.0658 | 1.694 | 0 |
| 6/23/2011 | Site 25 | A-252 | 0.0659 | 1.661 | 0 |
| 6/23/2011 | Site 33 | A-253 | 0.0665 | 1.716 | 0 |
| 6/23/2011 | Site 34 | A-254 | 0.2002 | 0.268 | 0 |
| 6/23/2011 | Site 35 | A-255 | 0.0642 | 1.709 | 0 |
| 6/23/2011 | Site 36 | A-256 | 0.0593 | 1.388 | 0 |
| 6/23/2011 | 6A9 | A-257 | 0.5703 | 0.268 | 0.175 |
| 6/23/2011 | 6A10 | A-258 | 0.4198 | 0.084 | 0 |
| 6/23/2011 | 6A11 | A-259 | 0.3318 | 0.028 | 0 |
| 6/23/2011 | 6A12 | A-260 | 0.4518 | 0.143 | 0.082 |
| 6/23/2011 | 6A13 | A-261 | 0.4178 | 0.114 | 0.079 |
| 6/23/2011 | 6A14 | A-262 | 0.428 | 0.33 | 0.127 |
| 6/23/2011 | 6A15 | A-263 | 0.2115 | 0.048 | 0.067 |
| 6/23/2011 | 6A16 | A-264 | 0.4177 | 0.136 | 0 |
| 6/23/2011 | Grndriv | A-265 | 0.0629 | 1.645 | 0 |
| 6/23/2011 | Northend of EGL | A-266 | 0.091 | 1.374 | 0 |
| 6/23/2011 | $30^0$ 01.646 Byu Stringer | A-267 | 0.1364 | 0.423 | 0 |
| 7/7/2011 | Site 25 | A-268 | 0.0596 | 1.654 | 0 |
| 7/7/2011 | Site 26 | A-269 | 0.0971 | 1.439 | 0 |
| 7/7/2011 | Site 27 | A-270 | 0.1814 | 0 | 0.021 |
| 7/7/2011 | Site 28 | A-271 | 0.079 | 1.529 | 0 |
| 7/7/2011 | Site 29 | A-272 | 0.0809 | 1.48 | 0 |
| 7/7/2011 | Site 30 | A-273 | 0.0621 | 0.332 | 0.006 |

| Date Sampled | Sample ID | LAB ID | SRP (mg-P/L) | NOx (mg-N/L) | NH4+ (mg-N/L) |
|---|---|---|---|---|---|
| 7/7/2011 | Site 33 atcha | A-274 | 0.064 | 1.767 | 0 |
| 7/7/2011 | Site 34 atcha | A-275 | 0.1791 | 1.175 | 0 |
| 7/7/2011 | Site 35 | A-276 | 0.0605 | 2.095 | 0 |
| 7/7/2011 | Site 37 | A-277 | 0.0626 | 1.815 | 0 |
| 7/7/2011 | 7A9 | A-278 | 0.5106 | 0 | 0 |
| 7/7/2011 | 7A10 | A-279 | 0.467 | 0 | 0.038 |
| 7/7/2011 | 7A11 | A-280 | 0.5537 | 0 | 0 |
| 7/7/2011 | 7A12 | A-281 | 0.6142 | 0 | 0 |
| 7/7/2011 | 7A13 | A-282 | 0.4919 | 0 | 0.003 |
| 7/7/2011 | 7A14 | A-283 | 0.4612 | 0 | 0.157 |
| 7/7/2011 | 7A15 | A-284 | 0.4533 | 0 | 0 |
| 7/7/2011 | 7A16 | A-285 | 0.483 | 0 | 0 |
| 7/7/2011 | Grndriv | A-286 | 0.0682 | 2.117 | 0.07 |
| 7/7/2011 | Northend of EGL | A-287 | 0.0635 | 1.583 | 0 |
| 7/7/2011 | Site 102 | A-288 | 0.0835 | 1.481 | 0 |
| 7/7/2011 | Site 103 | A-289 | 0.0588 | 2.108 | 0 |
| 7/7/2011 | Site 1 | A-290 | 0.0614 | 2.205 | 0 |
| 7/7/2011 | Flood 1.5 | A-291 | 0.0637 | 1.838 | 0 |
| 7/7/2011 | B2 | A-292 | 0.0614 | 2.062 | 0 |
| 7/7/2011 | Site 3 | A-293 | 0.0614 | 1.752 | 0 |
| 7/7/2011 | 4 atcha | A-294 | 0.1692 | 1.178 | 0 |
| 7/7/2011 | C5 | A-295 | 0.1151 | 0.696 | 0 |
| 7/7/2011 | Site 6 | A-296 | 0.1732 | 1.251 | 0 |
| 7/7/2011 | Site 7 | A-297 | 0.1253 | 0.373 | 0 |
| 7/7/2011 | Site 8 | A-298 | 0.1737 | 1.237 | 0 |
| 7/7/2011 | Site 9 | A-299 | 0.1213 | 0 | 0 |
| 7/7/2011 | Site 10 | A-300 | 0.0809 | 0.077 | 0 |
| 7/7/2011 | Site 11 | A-301 | 0.0522 | 0.905 | 0 |
| 7/7/2011 | Site 12 | A-302 | 0.1337 | 0 | 0 |
| 7/7/2011 | Site 13 | A-303 | 0.1776 | 0 | 0 |
| 7/7/2011 | Site 14 | A-304 | 0.1638 | 0 | 0 |
| 7/7/2011 | Site 15 | A-305 | 0.0509 | 0.803 | 0 |
| 7/7/2011 | Site 17 | A-306 | 0.0809 | 0.519 | 0 |
| 7/7/2011 | Site 18 | A-307 | 0.181 | 0 | 0 |
| 7/7/2011 | Site 19 | A-308 | 0.1482 | 0.586 | 0 |
| 7/7/2011 | Site 20 | A-309 | 0.1497 | 0.803 | 0 |
| 7/7/2011 | Site 21 | A-310 | 0.0632 | 1.862 | 0 |
| 7/7/2011 | Site 22 | A-311 | 0.137 | 0.785 | 0 |
| 7/7/2011 | Site 23 | A-312 | 0.0983 | 1.305 | 0 |
| 7/7/2011 | Site 24 | A-313 | 0.0663 | 2.015 | 0 |
| 7/7/2011 | 3 atcha | A-314 | 0.1769 | 1.173 | 0 |
| 5/19/2011 | Site 6 | A-315 | 0.0231 | 0.497 | 0 |
| 5/19/2011 | Site KB (12:40) | A-316 | 0.0341 | 1.323 | 0 |
| 5/30/2011 | St. Fran Dip | A-317 | 0.0432 | 1.006 | 0 |
| 6/1/2011 | M.C. Dip | A-318 | 0.0324 | 0.85 | 0 |
| 6/1/2011 | Wax Lake Outlet | A-319 | 0.0293 | 0.928 | 0 |
| 6/2/2011 | Melville Dip | A-320 | 0.0439 | 0.912 | 0 |
| 6/6/2011 | St. Fran Dip | A-321 | 0.0481 | 1.034 | 0 |
| 6/7/2011 | Melville Dip | A-322 | 0.0491 | 0.988 | 0 |
| 6/9/2011 | M.C. Dip | A-323 | 0.052 | 0.688 | 0 |
| 6/9/2011 | W.L. Dip | A-324 | 0.0413 | 1.045 | 0 |
| 6/13/2011 | St. Fran Dip | A-325 | 0.0541 | 1.409 | 0 |
| 6/15/2011 | M.C. Dip | A-326 | 0.0734 | 0.417 | 0 |
| 6/15/2011 | W.L. Dip | A-327 | 0.0517 | 1.117 | 0 |
| 6/16/2011 | Melville Dip | A-328 | 0.0603 | 1.398 | 0 |

| Date Sampled | Sample ID | LAB ID | SRP (mg-P/L) | NOx (mg-N/L) | NH4+ (mg-N/L) |
|---|---|---|---|---|---|
| 6/20/2011 | St. Fran Dip | A-329 | 0.066 | 1.775 | 0 |
| 6/22/2011 | M.C. Dip | A-330 | 0.0739 | 1.149 | 0 |
| 6/22/2011 | W.L. Dip | A-331 | 0.0636 | 1.453 | 0 |
| 6/23/2011 | Melville Dip | A-332 | 0.0689 | 2.166 | 0 |
| 6/27/2011 | St. Fran Dip | A-333 | 0.0743 | 2.219 | 0 |
| 6/29/2011 | M.C. Dip | A-334 | 0.0802 | 1.551 | 0 |
| 6/29/2011 | W.L. Dip | A-335 | 0.0677 | 1.731 | 0 |
| 7/21/2011 | Site 1 | A-336 | 0.0672 | 1.695 | 0 |
| 7/21/2011 | Flood 1.5 | A-337 | 0.0703 | 1.671 | 0 |
| 7/21/2011 | B2 | A-338 | 0.0691 | 1.589 | 0 |
| 7/21/2011 | Site 3 | A-339 | 0.1801 | 1.191 | 0 |
| 7/21/2011 | 4 atcha | A-340 | 0.1728 | 1.081 | 0 |
| 7/21/2011 | C5 | A-341 | 0.11 | 0.688 | 0 |
| 7/21/2011 | Site 6 | A-342 | 0.1626 | 1.111 | 0 |
| 7/21/2011 | Site 7 | A-343 | 0.1021 | 0.429 | 0 |
| 7/21/2011 | Site 8 | A-344 | 0.1677 | 1.217 | 0 |
| 7/21/2011 | Site 9 | A-345 | 0.1058 | 0.03 | 0 |
| 7/21/2011 | Site 10 | A-346 | 0.0894 | 0.017 | 0 |
| 7/21/2011 | Site 11 | A-347 | 0.0611 | 0.337 | 0 |
| 7/21/2011 | Site 12 | A-348 | 0.1098 | 0.061 | 0 |
| 7/21/2011 | Site 13 | A-349 | 0.1611 | 0 | 0 |
| 7/21/2011 | Site 14 | A-350 | 0.1606 | 0 | 0 |
| 7/21/2011 | Site 15 | A-351 | 0.0636 | 0.638 | 0 |
| 7/21/2011 | Site 17 | A-352 | 0.0813 | 0.484 | 0 |
| 7/21/2011 | Site 18 | A-353 | 0.1563 | 0 | 0 |
| 7/21/2011 | Site 19 | A-354 | 0.1446 | 0.618 | 0 |
| 7/21/2011 | Site 20 | A-355 | 0.147 | 0.798 | 0 |
| 7/21/2011 | Site 21 | A-356 | 0.0688 | 1.569 | 0 |
| 7/21/2011 | Site 22 | A-357 | 0.1396 | 0.694 | 0 |
| 7/21/2011 | Site 23 | A-358 | 0.0728 | 1.622 | 0 |
| 7/21/2011 | Site 26 | A-359 | 0.0861 | 1.515 | 0 |
| 7/21/2011 | Site 27 | A-360 | 0.2121 | 0.135 | 0 |
| 7/21/2011 | Site 28 | A-361 | 0.0934 | 1.369 | 0 |
| 7/21/2011 | Site 29 | A-362 | 0.0991 | 1.369 | 0 |
| 7/21/2011 | Site 30 | A-363 | 0.0638 | 0.262 | 0 |
| 7/21/2011 | Site 33 | A-364 | 0.0707 | 1.887 | 0 |
| 7/21/2011 | Site 34 | A-365 | 0.1163 | 1.418 | 0 |
| 7/21/2011 | Site 36 | A-366 | 0.0758 | 1.467 | 0 |
| 7/21/2011 | Site 37 | A-367 | 0.0772 | 1.572 | 0 |
| 7/21/2011 | Grndriv | A-368 | 0.072 | 1.519 | 0 |
| 7/21/2011 | Northend of EGL | A-369 | 0.0509 | 1.212 | 0 |
| 7/21/2011 | Site 102 | A-370 | 0.0962 | 1.334 | 0 |
| 7/21/2011 | Site 103 | A-371 | 0.0708 | 1.693 | 0 |
| 8/4/2011 | Site 1 | A-372 | 0.0726 | 1.451 | 0 |
| 8/4/2011 | Flood 1.5 | A-373 | 0.075 | 1.079 | 0.006 |
| 8/4/2011 | B2 | A-374 | 0.0688 | 1.096 | 0 |
| 8/4/2011 | Site 3 | A-375 | 0.1593 | 0.829 | 0 |
| 8/4/2011 | Site 4 | A-376 | 0.1515 | 0.796 | 0.007 |
| 8/4/2011 | C5 | A-377 | 0.1516 | 0.141 | 0 |
| 8/4/2011 | Site 6 | A-378 | 0.117 | 0.702 | 0 |
| 8/4/2011 | Site 7 | A-379 | 0.1321 | 0.047 | 0 |
| 8/4/2011 | Site 8 | A-380 | 0.138 | 0.82 | 0 |
| 8/4/2011 | Site 9 | A-381 | 0.0661 | 0 | 0.034 |
| 8/4/2011 | Site 10 | A-382 | 0.1071 | 0 | 0 |
| 8/4/2011 | Site 11 | A-383 | 0.0525 | 0.083 | 0.098 |

| Date Sampled | Sample ID | LAB ID | SRP (mg-P/L) | NOx (mg-N/L) | NH4+ (mg-N/L) |
|---|---|---|---|---|---|
| 8/4/2011 | Site 12 | A-384 | 0.1287 | 0.203 | 0.019 |
| 8/4/2011 | Site 13 | A-385 | 0.1389 | 0 | 0 |
| 8/4/2011 | Site 14 | A-386 | 0.1371 | 0 | 0.002 |
| 8/4/2011 | Site 15 | A-387 | 0.0671 | 0.304 | 0 |
| 8/4/2011 | Site 17 | A-388 | 0.0835 | 0.152 | 0 |
| 8/4/2011 | Site 18 | A-389 | 0.1106 | 0 | 0 |
| 8/4/2011 | Site 19 | A-390 | 0.1185 | 0.362 | 0 |
| 8/4/2011 | Site 20 | A-391 | 0.1162 | 0.564 | 0 |
| 8/4/2011 | Site 21 | A-392 | 0.0646 | 1.123 | 0 |
| 8/4/2011 | Site 22 | A-393 | 0.114 | 0.425 | 0 |
| 8/4/2011 | Site 23 | A-394 | 0.0659 | 1.087 | 0 |
| 8/4/2011 | Site 26 | A-395 | 0.0243 | 0.897 | 0 |
| 8/4/2011 | Site 27 | A-396 | 0.0581 | 0 | 0.018 |
| 8/4/2011 | Site 28 | A-397 | 0.0988 | 0.006 | 0.017 |
| 8/4/2011 | Site 29 | A-398 | 0.0675 | 0.868 | 0 |
| 8/4/2011 | Site 30 | A-399 | 0.0664 | 0 | 0.056 |
| 8/4/2011 | Site 33 | A-400 | 0.1695 | 0.67 | 0 |
| 8/4/2011 | Site 34 | A-401 | 0.0617 | 1.169 | 0 |
| 8/4/2011 | Site 36 | A-402 | 0.0673 | 0.583 | 0 |
| 8/4/2011 | Site 37 | A-403 | 0.0439 | 1.2 | 0 |
| 8/4/2011 | Grndriv | A-404 | 0.0654 | 1.065 | 0 |
| 8/4/2011 | Northend of EGL | A-405 | 0.016 | 0 | 0.071 |
| 8/4/2011 | Site 102 | A-406 | 0.013 | 0.359 | 0 |
| 8/4/2011 | Site 103 | A-407 | 0.0688 | 1.304 | 0 |
| 8/4/2011 | 10A9 | A-408 | 0.3172 | 0.182 | 0 |
| 8/4/2011 | 10A10 | A-409 | 0.4077 | 0.131 | 0 |
| 8/4/2011 | 10A11 | A-410 | 0.435 | 0 | 0 |
| 8/4/2011 | 10A12 | A-411 | 0.2359 | 0.038 | 0.03 |
| 8/4/2011 | 10A13 | A-412 | 0.2545 | 0.023 | 0.072 |
| 8/4/2011 | 10A14 | A-413 | 0.2343 | 0.112 | 0 |
| 8/4/2011 | 10A15 | A-414 | 0.564 | 0.097 | 0.04 |
| 8/4/2011 | 10A16 | A-415 | 0.2996 | 0.158 | 0.004 |
| 9/8/2011 | Site 1 | A-416 | 0.066 | 0.55 | 0 |
| 9/8/2011 | Flood 1.5 | A-417 | 0.055 | 0.385 | 0 |
| 9/8/2011 | B2 | A-418 | 0.0624 | 0.42 | 0 |
| 9/8/2011 | Site 3 | A-419 | 0.0417 | 0.336 | 0 |
| 9/8/2011 | Site 4 | A-420 | 0.0415 | 0.308 | 0 |
| 9/8/2011 | C5 | A-421 | 0.0694 | 0.036 | 0 |
| 9/8/2011 | Site 6 | A-422 | 0.0521 | 0.306 | 0 |
| 9/8/2011 | Site 7 | A-423 | 0.0389 | 0.048 | 0 |
| 9/8/2011 | Site 8 | A-424 | 0.05 | 0.395 | 0 |
| 9/8/2011 | Site 9 | A-425 | 0.0688 | 0 | 0 |
| 9/8/2011 | Site 10 | A-426 | 0.0626 | 0.077 | 0.041 |
| 9/8/2011 | Site 11 | A-427 | 0.0865 | 0 | 0 |
| 9/8/2011 | Site 12 | A-428 | 0.0626 | 0.183 | 0 |
| 9/8/2011 | Site 13 | A-429 | 0.0688 | 0.016 | 0 |
| 9/8/2011 | Site 14 | A-430 | 0.0659 | 0.026 | 0.012 |
| 9/8/2011 | Site 15 | A-431 | 0.0658 | 0.099 | 0.014 |
| 9/8/2011 | Site 17 | A-432 | 0.0659 | 0.067 | 0 |
| 9/8/2011 | Site 18 | A-433 | 0.0845 | 0.006 | 0.006 |
| 9/8/2011 | Site 19 | A-434 | 0.0651 | 0.222 | 0 |
| 9/8/2011 | Site 20 | A-435 | 0.0675 | 0.323 | 0 |
| 9/8/2011 | Site 21 | A-436 | 0.0868 | 0.489 | 0 |
| 9/8/2011 | Site 22 | A-437 | 0.0629 | 0.285 | 0 |
| 9/8/2011 | Site 23 | A-438 | 0.0887 | 0.479 | 0 |

| Date Sampled | Sample ID | LAB ID | SRP (mg-P/L) | NOx (mg-N/L) | NH4+ (mg-N/L) |
|---|---|---|---|---|---|
| 9/8/2011 | Site 26 | A-439 | 0.076 | 0.454 | 0 |
| 9/8/2011 | Site 27 | A-440 | 0.0206 | 0 | 0.013 |
| 9/8/2011 | Site 33 | A-441 | 0.1443 | 0.485 | 0 |
| 9/8/2011 | Site 34 | A-442 | 0.0792 | 0.469 | 0 |
| 9/8/2011 | Site 36 | A-443 | 0.0718 | 0.394 | 0.029 |
| 9/8/2011 | Grndriv | A-444 | 0.0865 | 0.542 | 0 |
| 9/8/2011 | Northend of EGL | A-445 | 0.0543 | 0.127 | 0.073 |
| 9/8/2011 | 10A9 | A-446 | 0.1165 | 0.533 | 0 |
| 9/8/2011 | 10A11 | A-447 | 0.0637 | 0 | 0.001 |
| 9/8/2011 | 10A12 | A-448 | 0.0853 | 0 | 0.028 |
| 9/8/2011 | 10A13 | A-449 | 0.0818 | 0.725 | 0.085 |
| 9/8/2011 | 10A16 | A-450 | 0.0953 | 0.452 | 0 |
| 9/8/2011 | Butte La Rose | A-451 | 0.0901 | 0.493 | 0 |
| 9/8/2011 | Crook Chene | A-452 | 0.0935 | 0.53 | 0 |
| 9/8/2011 | L. Rond | A-453 | 0.0834 | 0.45 | 0 |
| 10/12/2011 | Site 6 | A-454 | 0.0645 | 0.507 | 0 |
| 10/12/2011 | Site 7 | A-455 | 0.0366 | 0.143 | 0 |
| 10/12/2011 | Site 8 | A-456 | 0.0666 | 0.596 | 0 |
| 10/12/2011 | Site 9 | A-457 | 0.0363 | 0.048 | 0.006 |
| 10/12/2011 | Site 10 | A-458 | 0.0719 | 0 | 0.037 |
| 10/12/2011 | Site 11 | A-459 | 0.0955 | 0 | 0 |
| 10/12/2011 | Site 12 | A-460 | 0.0379 | 0.324 | 0.053 |
| 10/12/2011 | Site 13 | A-461 | 0.0401 | 0.173 | 0.006 |
| 10/12/2011 | Site 14 | A-462 | 0.0334 | 0.162 | 0.018 |
| 10/12/2011 | Site 15 | A-463 | 0.0546 | 0.19 | 0.018 |
| 10/12/2011 | Site 17 | A-464 | 0.0532 | 0.234 | 0.002 |
| 10/12/2011 | Site 18 | A-465 | 0.051 | 0.093 | 0.038 |
| 10/12/2011 | Site 19 | A-466 | 0.0657 | 0.363 | 0 |
| 10/12/2011 | Site 20 | A-467 | 0.0635 | 0.374 | 0 |
| 10/12/2011 | Site 21 | A-468 | 0.0658 | 0.554 | 0 |
| 10/12/2011 | Site 22 | A-469 | 0.0625 | 0.369 | 0 |
| 10/12/2011 | Site 23 | A-470 | 0.0561 | 0.264 | 0.003 |
| 10/12/2011 | Site 24 | A-471 | 0.0582 | 0.381 | 0 |
| 10/12/2011 | Site 25 | A-472 | 0.0688 | 0.485 | 0.017 |
| 9/9/2011 | Site 26 | A-473 | 0.0798 | 0.377 | 0.013 |
| 10/13/2011 | Site 26 | A-474 | 0.0617 | 0.453 | 0 |
| 9/9/2011 | Site 27 | A-475 | 0.0251 | 0 | 0.079 |
| 10/13/2011 | Site 27 | A-476 | 0.0283 | 0.036 | 0.052 |
| 10/13/2011 | Site 28 | A-477 | 0.0306 | 0 | 0.121 |
| 9/9/2011 | Site 29 | A-478 | 0.0669 | 0.41 | 0.021 |
| 10/13/2011 | Site 29 | A-479 | 0.0603 | 0.44 | 0 |
| 10/13/2011 | Site 30 | A-480 | 0.0995 | 0.066 | 0.044 |
| 10/12/2011 | Site 35 | A-481 | 0.0618 | 0.491 | 0 |
| 10/12/2011 | Site 36 | A-482 | 0.0944 | 0.086 | 0.033 |
| 10/13/2011 | Site 37 | A-483 | 0.0625 | 0.571 | 0 |
| 10/13/2011 | #102 | A-484 | 0.0604 | 0.355 | 0 |
| 10/13/2011 | #103 | A-485 | 0.0632 | 0.528 | 0 |

# Appendix D

# Other Laboratory Analyses

## Table D1. LDEQ reported results for the Atchafalaya River at Morgan City

| Parameter | Unit | 3/15/2011 | 4/5/2011 | 5/10/2011 | 7/11/2011 |
|---|---|---|---|---|---|
| DISSOLVED OXYGEN | mg/L | 9.2 | 8.35 | 6.04 | 5.7 |
| DISSOLVED OXYGEN PERCENT SATURATION | % | 0.822 | 0.813 | 0.662 | 0.733 |
| GAGE HEIGHT | ft | 4.45 | 5.8 | 6.58 | 4.8 |
| OIL SHEEN PRESENT | | | | | |
| pH | SU | 7.74 | 7.6 | 7.51 | 7.7 |
| SALINITY | ppt | 0.17 | 0.17 | 0.14 | 0.2 |
| SPECIFIC CONDUCTANCE, FIELD | umhos/cm | 345.1 | 340.5 | 283 | 408.1 |
| WATER TEMPERATURE | deg C | 10.66 | 14.47 | 19.72 | 28.57 |
| ALKALINITY | mg/L | 94 | 107 | 88 | 132 |
| AMMONIA NITROGEN | mg/L | ND | ND | 0.05 | ND |
| CHLORIDE, ION CHROMATOGRAPH | mg/L | 25.2 | 19.9 | 14.2 | 17.8 |
| COLOR | PCU | 24 | 32 | 34 | 15 |
| FECAL COLIFORM | cfu/100ml | 350 | 90 | 230 | 180 |
| HARDNESS (AS CACO3) | mg/L | 96 | 146 | 40 | 74 |
| NITRATE+NITRITE NITROGEN | mg/L | 1.14 | 1.03 | 0.64 | 0.67 |
| NITROGEN, KJELDAHL | mg/L | 0.39 | 0.64 | 0.56 | 0.45 |
| PHOSPHORUS (AS P) | mg/L | 0.24 | 0.08 | 0.18 | 0.2 |
| SULFATE | mg/L | 33.7 | 32.1 | 30.4 | 50.5 |
| TOTAL DISSOLVED SOLIDS | mg/L | 195 | 235 | 164 | 323 |
| TOTAL SUSPENDED SOLIDS | mg/L | 248 | 78 | 135 | 96 |
| TURBIDITY | NTU | 293 | 52.5 | 29.3 | 14.2 |
| ARSENIC | ug/L | | 1.09 | | |
| CADMIUM | ug/L | | 0.01 | | |
| CHROMIUM | ug/L | | ND | | |
| COPPER | ug/L | | 1.54 | | |
| LEAD | ug/L | | 0.12 | | |
| NICKEL | ug/L | | 0.68 | | |
| ZINC | ug/L | | 3.47 | | |
| 1,1,1-TRICHLOROETHANE | | | ND | | ND |
| 1,1,2,2-TETRACHLOROETHANE | | | ND | | ND |
| 1,1,2-TRICHLOROETHANE | | | ND | | ND |
| 1,1-DICHLOROETHANE | | | ND | | ND |
| 1,1-DICHLOROETHENE | | | ND | | ND |
| 1,2,3-TRICHLOROBENZENE | | | ND | | ND |
| 1,2-DICHLOROBENZENE | | | ND | | ND |
| 1,2-DICHLOROETHANE | | | ND | | ND |
| 1,2-DICHLOROPROPANE | | | ND | | ND |
| 1,3-DICHLOROBENZENE | | | ND | | ND |
| 1,4-DICHLOROBENZENE | | | ND | | ND |
| BENZENE | | | ND | | ND |
| BROMODICHLOROMETHANE | | | ND | | ND |
| BROMOFORM | | | ND | | ND |
| BROMOMETHANE | | | ND | | ND |
| CARBON TETRACHLORIDE | | | ND | | ND |
| CHLOROBENZENE | | | ND | | ND |
| CHLOROETHANE | | | ND | | ND |
| CHLOROFORM | | | ND | | ND |
| CHLOROMETHANE | | | ND | | ND |
| CIS-1,3-DICHLOROPROPENE | | | ND | | ND |
| DIBROMOCHLOROMETHANE | | | ND | | ND |
| ETHYLBENZENE | | | ND | | ND |
| M, P-XYLENES | | | ND | | ND |
| METHYLENE CHLORIDE | | | ND | | ND |
| MTBE | | | ND | | ND |

| | | | | | |
|---|---|---|---|---|---|
| O-XYLENE | | | ND | | ND |
| STYRENE | | | ND | | ND |
| TETRACHLOROETHYLENE (PCE) | | | ND | | ND |
| TOLUENE | | | ND | | ND |
| TRANS-1,2-DICHLOROETHENE | | | ND | | ND |
| TRANS-1,3-DICHLOROPROPENE | | | ND | | ND |
| TRICHLOROETHYLENE (PCE) | | | ND | | ND |
| TRICHLOROFLUOROMETHANE | | | ND | | ND |
| VINYL CHLORIDE | | | ND | | ND |

## Table D2. Water Supply Systems for which LDHH reported results

| pwsid | sysname | syspop | parish | dhhregion | facid |
|---|---|---|---|---|---|
| LA1101010 | ST MARY PARISH WW DIST NO 5 | 7500 | ST MARY | R3 | 1101010-001 |
| LA1101011 | WATER & SEWER COMMISSION #4 OF ST MARY | 9348 | ST MARY | R3 | 1101011-001 |
| LA1101005 | MORGAN CITY WATER SYSTEM | 12703 | ST MARY | R3 | 1101005-001 |
| LA1101005 | MORGAN CITY WATER SYSTEM | 12703 | ST MARY | R3 | 1101005-003 |
| LA1101009 | ST MARY PARISH WATER SEWERAGE COMM NO 1 | 2823 | ST MARY | R3 | 1101009-002 |

## Table D3. Water Supply Systems for which LDHH reported results

| analyte_name | colllection_end_dt | concentration_msr | uom_code | conc_std_uom | std_uom | st_asgn_ident_cd |
|---|---|---|---|---|---|---|
| 2,2-DICHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,2,3-TRICHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,3-DICHLOROPROPENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,3-DICHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| N-PROPYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| O-XYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| STYRENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| ISOPROPYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| BROMOBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,1-DICHLOROPROPENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| DIBROMOMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| CIS-1,2-DICHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| ETHYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| TOLUENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| BENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,2,4-TRICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| NAPHTHALENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| HEXACHLOROBUTADIENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| TRICHLOROFLUOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| CHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,1,2,2-TETRACHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| TETRACHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,1,1,2-TETRACHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| CHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| BROMOMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| DICHLORODIFLUOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,1,2-TRICHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| TRICHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,2-DICHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |

| | | | | | | |
|---|---|---|---|---|---|---|
| CHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| P-ISOPROPYLTOLUENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| CARBON TETRACHLORIDE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,1,1-TRICHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,2-DICHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| TRANS-1,2-DICHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,1-DICHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,1-DICHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| VINYL CHLORIDE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| P-DICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| O-DICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| M-DICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| P-CHLOROTOLUENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| O-CHLOROTOLUENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| DICHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| XYLENE, META AND PARA | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| XYLENES, TOTAL | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| ETHYLENE DIBROMIDE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| DIBROMOCHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| BROMODICHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| BROMOFORM | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| CHLOROFORM | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,2-DIBROMO-3-CHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| BROMOCHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| SEC-BUTYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| TERT-BUTYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,3,5-TRIMETHYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| N-BUTYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,2,3-TRICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 1,2,4-TRIMETHYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101005-003 |
| 2,2-DICHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,2,3-TRICHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,3-DICHLOROPROPENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,3-DICHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| N-PROPYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| O-XYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| STYRENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| ISOPROPYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| BROMOBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,1-DICHLOROPROPENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| DIBROMOMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| CIS-1,2-DICHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| ETHYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| TOLUENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| BENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,2,4-TRICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| NAPHTHALENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| HEXACHLOROBUTADIENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| TRICHLOROFLUOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| CHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,1,2,2-TETRACHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |

| | | | | | | |
|---|---|---|---|---|---|---|
| TETRACHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,1,1,2-TETRACHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| CHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| BROMOMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| DICHLORODIFLUOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,1,2-TRICHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| TRICHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,2-DICHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| CHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| P-ISOPROPYLTOLUENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| CARBON TETRACHLORIDE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,1,1-TRICHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,2-DICHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| TRANS-1,2-DICHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,1-DICHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,1-DICHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| VINYL CHLORIDE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| P-DICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| O-DICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| M-DICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| P-CHLOROTOLUENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| O-CHLOROTOLUENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| DICHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| XYLENE, META AND PARA | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| XYLENES, TOTAL | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| ETHYLENE DIBROMIDE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| DIBROMOCHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| BROMODICHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| BROMOFORM | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| CHLOROFORM | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,2-DIBROMO-3-CHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| BROMOCHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| SEC-BUTYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| TERT-BUTYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,3,5-TRIMETHYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| N-BUTYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,2,3-TRICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 1,2,4-TRIMETHYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101009-002 |
| 2,2-DICHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,2,3-TRICHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,3-DICHLOROPROPENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| N-PROPYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,3-DICHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| O-XYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| STYRENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| ISOPROPYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,1-DICHLOROPROPENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| DIBROMOMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| CIS-1,2-DICHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| BROMOBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| ETHYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |

| | | | | | | |
|---|---|---|---|---|---|---|
| TOLUENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| BENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,2,4-TRICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| NAPHTHALENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| HEXACHLOROBUTADIENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| TRICHLOROFLUOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| CHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,1,2,2-TETRACHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| TETRACHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| CHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| BROMOMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| DICHLORODIFLUOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,1,1,2-TETRACHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,1,2-TRICHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| TRICHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,2-DICHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| CHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| P-ISOPROPYLTOLUENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| CARBON TETRACHLORIDE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,1,1-TRICHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,2-DICHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| TRANS-1,2-DICHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,1-DICHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,1-DICHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| VINYL CHLORIDE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| P-DICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| O-DICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| M-DICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| P-CHLOROTOLUENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| O-CHLOROTOLUENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| DICHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| XYLENE, META AND PARA | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| XYLENES, TOTAL | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| ETHYLENE DIBROMIDE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| DIBROMOCHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| BROMODICHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| BROMOFORM | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| CHLOROFORM | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,2-DIBROMO-3-CHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| BROMOCHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| SEC-BUTYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| TERT-BUTYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,3,5-TRIMETHYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| N-BUTYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,2,3-TRICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 1,2,4-TRIMETHYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101010-001 |
| 2,2-DICHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,2,3-TRICHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,3-DICHLOROPROPENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| N-PROPYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| O-XYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |

| | | | | | | |
|---|---|---|---|---|---|---|
| STYRENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| ISOPROPYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,3-DICHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,1-DICHLOROPROPENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| DIBROMOMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| CIS-1,2-DICHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| BROMOBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| ETHYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| TOLUENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| BENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,2,4-TRICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| NAPHTHALENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| HEXACHLOROBUTADIENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| CHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,1,2,2-TETRACHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| TETRACHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| TRICHLOROFLUOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| CHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| BROMOMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| DICHLORODIFLUOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,1,1,2-TETRACHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,1,2-TRICHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| TRICHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,2-DICHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| CHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| P-ISOPROPYLTOLUENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| CARBON TETRACHLORIDE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,1,1-TRICHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,2-DICHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| TRANS-1,2-DICHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,1-DICHLOROETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,1-DICHLOROETHYLENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| VINYL CHLORIDE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| P-DICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| O-DICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| M-DICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| P-CHLOROTOLUENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| O-CHLOROTOLUENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| DICHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| XYLENE, META AND PARA | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| XYLENES, TOTAL | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| ETHYLENE DIBROMIDE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| DIBROMOCHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| BROMODICHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| BROMOFORM | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| CHLOROFORM | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,2-DIBROMO-3-CHLOROPROPANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| BROMOCHLOROMETHANE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| SEC-BUTYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| TERT-BUTYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,3,5-TRIMETHYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |

| | | | | | | |
|---|---|---|---|---|---|---|
| N-BUTYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,2,3-TRICHLOROBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |
| 1,2,4-TRIMETHYLBENZENE | 31-May-11 | 0 | UG/L | 0 | UG/L | 1101011-001 |

## Table D4. USGS NASQUAN Samples (Field and Sediment analyses)

| Parish | Site ID | Site Name | Date | Temp ( C) | Disch (cfs) | EC (uS/ cm) | DO (mg/L) | pH (su) | Carb. (mg/L) | BiCarb. (mg/L) | Fld Alk (mg/L) | TSS (%) | TSS (mg/L) | Lab pH (su) | Lab Alk (mg/L) | Turb (NTU) | TDS (mg/L) | Lab EC (uS/ cm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 1/11/2011 | 5.81 | 131000 | 472 | 12.2 | 8.11 | 4 | 168 | 144 | 98 | 108 | 8.1 | 150 | 53 | 284.3 | 478 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 2/10/2011 | 4.9 | | 428 | 12.2 | 8.18 | | 146 | 120 | 98 | 60 | 8 | 120 | 53 | 261.7 | 425 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 2/23/2011 | 8.47 | 118000 | 452 | 12.5 | 8.05 | | 139 | 114 | 95 | 69 | 8.1 | 117 | 35 | 276.4 | 457 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 3/7/2011 | 7.86 | 306000 | 410 | 11.6 | 7.97 | | 127 | 104 | 87 | 562 | 7.9 | 108 | 240 | 242.6 | 425 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 3/22/2011 | 11.11 | 409000 | 328 | 11 | 8.03 | | 105 | 86.1 | 76 | 147 | 7.9 | 93 | 74 | 199.1 | 333 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 4/7/2011 | 13.06 | 403000 | 354 | 10.3 | 7.93 | | 113 | 93 | 52 | 131 | 8 | 104 | 33 | 215.3 | 354 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 4/21/2011 | 16.92 | 316000 | 371 | 9.1 | 7.92 | | 123 | 101 | 82 | 134 | 8 | 107 | 63 | 214.5 | 374 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 5/12/2011 | 18.66 | 623000 | 270 | 7.5 | 7.75 | | | | 52 | 213 | 7.8 | 85.1 | 59 | 171 | 268 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 5/19/2011 | 19.25 | 683000 | 270 | 8.1 | 7.8 | | 99.8 | 81.9 | | 261 | 7.8 | 87.3 | 58 | 155.4 | 265 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 5/26/2011 | 21.3 | 692000 | 287 | 7 | 7.55 | | 103 | 84.1 | 39 | 174 | 8 | 93.8 | 34 | 172.4 | 276 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 6/2/2011 | 23.65 | 584000 | 288 | | 7.65 | | 106 | 87.1 | | 107 | 8 | 89 | 27 | 164.9 | 283 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 6/7/2011 | 25.05 | | 306 | 5.9 | 7.73 | | 113 | 92.6 | 50 | 91 | 7.8 | 93.3 | 27 | 180.7 | 303 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 6/16/2011 | 27.44 | 405000 | 324 | 5.3 | 7.8 | | 122 | 99.7 | 79 | 70 | 8 | 104 | 32 | 194.6 | 316 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 6/23/2011 | 27.23 | 347000 | 387 | 6.1 | 7.72 | | 144 | 118 | 81 | 107 | 8.1 | 124 | 38 | 235.4 | 386 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 6/30/2011 | 26.88 | 274000 | 415 | 4.5 | 7.75 | | 152 | 125 | 95 | 157 | 8.2 | 128 | 79 | 252.1 | 399 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 7/14/2011 | 28.55 | 275000 | 399 | 6.7 | 7.78 | | 148 | 122 | 94 | 153 | 8.1 | 124 | 82 | 257.7 | 390 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 7/28/2011 | 30.1 | 193000 | 484 | 6.3 | 7.84 | | 172 | 141 | 97 | 162 | 8.1 | 145 | 71 | 290.1 | 471 |

| Parish | Site ID | Site Name | Date | Temp ( C) | Disch (cfs) | EC (uS/ cm) | DO (mg/L) | pH (su) | Carb. (mg/L) | BiCarb. (mg/L) | Fld Alk (mg/L) | TSS (%) | TSS (mg/L) | Lab pH (su) | Lab Alk (mg/L) | Turb (NTU) | TDS (mg/L) | Lab EC (uS/ cm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 8/25/2011 | 29.5 | 140000 | 528 | 6.7 | 7.98 | | 182 | 149 | 99 | 75 | 8.2 | 152 | 39 | 325.7 | 516 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 10/25/2011 | 19.15 | 84000 | 540 | 8.8 | 8.1 | | 175 | 144 | | | 8.2 | 154 | 18 | 327.6 | 546 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 12/12/2011 | 9.07 | 337000 | 286 | 12.2 | 8.2 | | 101 | 82.7 | | | 7.9 | 84.7 | 94 | 165.9 | 291 |
| POINTE COUPEE | 07381495 | (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 1/19/2012 | 9.13 | 210000 | 267 | 11.3 | 7.93 | | 99.1 | 81.3 | | | | | 63 | | |
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 2/8/2011 | 5.71 | 54800 | 470 | 13.3 | 8.1 | | 154 | 126 | 100 | 91 | 8 | 128 | 53 | 288.8 | 477 |
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 3/24/2011 | 13.3 | 216000 | 337 | 9.8 | 7.85 | | 116 | 95.2 | 66 | 193 | 8.1 | 97 | 77 | 216.2 | 342 |
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 4/5/2011 | 14.28 | 246000 | 340 | 8.8 | 8 | | 109 | 89.4 | 56 | 180 | 8 | 99.3 | 47 | 215.3 | 341 |

| Parish | Site ID | Site Name | Date | Temp ( C) | Disch (cfs) | EC (uS/ cm) | DO (mg/L) | pH (su) | Carb. (mg/L) | BiCarb. (mg/L) | Fld Alk (mg/L) | TSS (%) | TSS (mg/L) | Lab pH (su) | Lab Alk (mg/L) | Turb (NTU) | TDS (mg/L) | Lab EC (uS/ cm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 4/19/2011 | 17.4 | 165000 | 373 | 8.4 | 7.9 | | 128 | 105 | 85 | 120 | 8.1 | 109 | 53 | 227.4 | 373 |
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 5/11/2011 | 20.1 | 285000 | 283 | 5.8 | 7.7 | | 96.1 | 78.8 | 75 | 218 | 7.7 | 87.6 | 82 | 177.5 | 280 |
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 5/18/2011 | 20.4 | 363000 | 281 | 5 | 7.75 | | 105 | 85.7 | | 338 | 7.8 | 89.7 | 86 | 173.9 | 270 |
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 5/25/2011 | 22.3 | 470000 | 281 | 4.7 | 7.71 | | 101 | 82.9 | 51 | 241 | 7.7 | 93.2 | 59 | 164 | 279 |
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 6/1/2011 | 24.88 | 477000 | 283 | 5.8 | 7.75 | | 112 | 92 | | 160 | 7.8 | 93 | 36 | 199.6 | 283 |
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 6/9/2011 | 26.12 | 388000 | 299 | 4 | 7.45 | | 114 | 93.8 | 49 | 128 | 7.7 | 96.6 | 21 | 175.8 | 291 |
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 6/15/2011 | 27.73 | 301000 | 308 | 3.8 | 7.6 | | 120 | 98.3 | 61 | 99 | 7.8 | 101 | 31 | 195.1 | 301 |
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 6/22/2011 | 28.32 | 230000 | 348 | 4.8 | 7.65 | | 136 | 112 | 78 | 76 | 7.9 | 115 | 32 | 213.8 | 342 |
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 6/29/2011 | 27.65 | 188000 | 400 | 4.3 | 7.6 | | 155 | 127 | 96 | 132 | 8 | 127 | 59 | 253.3 | 375 |
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 7/13/2011 | 28.42 | 154000 | 394 | 5.4 | 7.71 | | 149 | 122 | 97 | 134 | 7.9 | 124 | 76 | 241.5 | 387 |
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 7/27/2011 | 29.25 | 122000 | 456 | 5.7 | 7.87 | | 170 | 139 | 99 | 108 | 8 | 143 | 58 | 269 | 444 |
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 8/24/2011 | 30.45 | 80800 | 510 | 6.2 | 7.98 | | 176 | 145 | 100 | 68 | 8.2 | 138 | 40 | 318.2 | 503 |
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 10/27/2011 | 20.38 | 70200 | 546 | 8.6 | 8.1 | | 187 | 153 | | | 8.2 | 149 | 16 | 312.1 | 544 |
| ST. MARY | 07381600 | LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 12/8/2011 | 10.92 | 150000 | 400 | 11.1 | 8 | | 129 | 106 | | | 8.2 | 105 | 103 | 248.4 | 410 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 1/10/2011 | 5.68 | 267000 | 446 | | 8.02 | 2 | 158 | 133 | 89 | 124 | 8.1 | 149 | 51 | 262.8 | 450 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 2/9/2011 | 4.19 | 290000 | 461 | 13.3 | 8.17 | | 171 | 140 | 64 | 78 | 8.2 | 142 | 30 | 286.9 | 456 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 2/22/2011 | 7.09 | 299000 | 441 | 13.2 | 8.08 | | 144 | 118 | 84 | 71 | 8.1 | 123 | 41 | 262.8 | 445 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 3/8/2011 | 7.67 | 668000 | 411 | 10.6 | 8.05 | | 127 | 104 | 81 | 569 | 8 | 107 | 231 | 243.5 | 420 |

| Parish | Site ID | Site Name | Date | Temp ( C) | Disch (cfs) | EC (uS/ cm) | DO (mg/L) | pH (su) | Carb. (mg/L) | BiCarb. (mg/L) | Fld Alk (mg/L) | TSS (%) | TSS (mg/L) | Lab pH (su) | Lab Alk (mg/L) | Turb (NTU) | TDS (mg/L) | Lab EC (uS/ cm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 3/21/2011 | 10.7 | 893000 | 327 | 10.2 | 8.04 | | 119 | 97.2 | 73 | 150 | 7.9 | 94 | 72 | 193.7 | 333 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 4/6/2011 | 13.18 | 938000 | 344 | 9.2 | 7.82 | | 113 | 92.4 | 50 | 110 | 8.1 | 104 | 30 | 218.8 | 345 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 4/20/2011 | 16.67 | 733000 | 372 | 9.1 | 7.9 | | 123 | 101 | 75 | 145 | 8.2 | 108 | 54 | 226.1 | 371 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 5/9/2011 | 18.6 | 1200000 | 284 | 8.6 | 7.75 | | 97.6 | 80.1 | 74 | 74 | 8 | 86.9 | 38 | 176.3 | 281 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 5/16/2011 | 19.18 | 1200000 | 270 | 6.7 | 7.8 | | 96.9 | 79.5 | | 70 | 7.8 | 86.5 | 42 | 165.3 | 267 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 5/23/2011 | 20.68 | 1410000 | 277 | 7 | 7.7 | | 98.1 | 80.5 | 59 | 70 | 8 | 91 | 32 | 157 | 278 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 5/30/2011 | 22.3 | 1340000 | 306 | 7 | 7.9 | | 118 | 96.6 | | 61 | 8.2 | 98.8 | 23 | 180.5 | 296 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 6/6/2011 | 24.35 | | 334 | 7.8 | 7.83 | | 125 | 102 | 64 | 46 | 8.1 | 104 | 21 | 189.2 | 331 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 6/13/2011 | 26.27 | 1010000 | 347 | 6.5 | 7.8 | | 130 | 107 | 66 | 72 | 8.1 | 110 | 30 | 201.6 | 335 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 6/20/2011 | 27.97 | 925000 | 391 | 6.7 | 7.9 | | 150 | 123 | 73 | 91 | 8.2 | 126 | 31 | 232.7 | 385 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 6/27/2011 | 26.88 | 704000 | 429 | 7.8 | 7.76 | | 163 | 133 | 83 | 172 | 8.2 | 138 | 68 | 265 | 425 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 7/11/2011 | 27.65 | 674000 | 415 | | 7.83 | | 149 | 123 | 80 | 179 | 8.1 | 127 | 80 | 254.6 | 414 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 7/25/2011 | 29.62 | 551000 | 478 | 6 | 7.94 | | 176 | 144 | 88 | 149 | 8.1 | 148 | 61 | 271 | 461 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 8/22/2011 | 29.76 | 412000 | 525 | 7.5 | 7.96 | | 180 | 147 | 97 | 95 | 8.3 | 142 | 45 | 329.6 | 518 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 10/24/2011 | 19.2 | 203000 | 550 | 9.3 | 8.05 | | 178 | 146 | | | 8.3 | 157 | 28 | 344.4 | 547 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 12/6/2011 | 10.85 | 599000 | 347 | 11.1 | 8.1 | | 118 | 96.4 | | | 7.9 | 98.7 | 121 | 207 | 344 |
| WEST FELICIANA | 07373420 | MISSISSIPPI R NR ST. FRANCISVILLE, LA | 1/17/2012 | 8.1 | 532000 | 312 | 11.9 | 8 | | 120 | 98.1 | | | | | 49 | | |
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 2/8/2011 | 5.45 | 54200 | 472 | 13 | 8.12 | | 159 | 130 | 99 | 94 | 8 | 129 | 55 | 297.3 | 481 |
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 3/24/2011 | 12.75 | 173000 | 330 | 10.5 | 7.9 | | 113 | 92.6 | 80 | 166 | 7.9 | 95 | 81 | 201.3 | 337 |

| Parish | Site ID | Site Name | Date | Temp ( C) | Disch (cfs) | EC (uS/ cm) | DO (mg/L) | pH (su) | Carb. (mg/L) | BiCarb. (mg/L) | Fld Alk (mg/L) | TSS (%) | TSS (mg/L) | Lab pH (su) | Lab Alk (mg/L) | Turb (NTU) | TDS (mg/L) | Lab EC (uS/ cm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 4/5/2011 | 13.9 | 184000 | 338 | 9 | 8 | | 106 | 87.1 | 75 | 135 | 7.9 | 98.8 | 48 | 223 | 342 |
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 4/19/2011 | 17.28 | 147000 | 373 | 9.3 | 7.82 | | 130 | 106 | 93 | 114 | 8 | 109 | 53 | 236.3 | 376 |
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 5/11/2011 | 19.33 | 217000 | 278 | 6.3 | 7.75 | | 93.2 | 76.4 | 77 | 211 | 7.8 | 85.8 | 79 | 161.9 | 277 |
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 5/18/2011 | 19.45 | 244000 | 273 | 6.1 | 7.8 | | 98.4 | 80.7 | | 223 | 7.9 | 88.9 | 94 | 162.5 | 266 |
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 5/25/2011 | 21.4 | 300000 | 283 | 5.6 | 7.8 | | 98.9 | 81.1 | 66 | 262 | 7.8 | 93 | 75 | 171 | 280 |
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 6/1/2011 | 23.5 | 309000 | 288 | 7.5 | 7.8 | | 111 | 90.8 | | 153 | 7.8 | 92.5 | 51 | 167.7 | 286 |
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 6/9/2011 | 25.63 | 267000 | 304 | 5.6 | 7.76 | | 114 | 93.8 | 66 | 113 | 8 | 94 | 39 | 194.2 | 295 |
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 6/15/2011 | 27.11 | 211000 | 311 | 4.8 | 7.8 | | 114 | 93.6 | 70 | 103 | 7.9 | 99.3 | 35 | 184.2 | 303 |
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 6/22/2011 | 28 | 178000 | 355 | 5.3 | 7.75 | | 140 | 115 | 80 | 94 | 7.9 | 115 | 37 | 222 | 349 |
| | | | | | | | | | | | | | | | | | | |
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 6/29/2011 | 27.45 | 150000 | 406 | 5.1 | 7.63 | | 153 | 126 | 93 | 151 | 8 | 129 | 69 | 246.9 | 387 |
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 7/13/2011 | 28.23 | 132000 | 397 | 5.7 | 7.71 | | 144 | 118 | 95 | 156 | 8.1 | 122 | 81 | 224.1 | 389 |
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 7/27/2011 | 29.37 | 102000 | 464 | 6 | 7.84 | | 171 | 140 | 98 | 113 | 8.1 | 143 | 55 | 269.4 | 451 |
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 8/24/2011 | 30.3 | 63800 | 512 | 6.5 | 7.97 | | 178 | 146 | 99 | 74 | 8.3 | 137 | 38 | 309.7 | 508 |
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 10/27/2011 | 20.58 | 57300 | 547 | 8.7 | 8.1 | | 200 | 164 | | | 8.2 | 153 | 15 | 327 | 557 |
| ST. MARY | 07381590 | WAX LAKE OUTLET AT CALUMET, LA | 12/8/2011 | 10.9 | 126000 | 400 | 11.3 | 8.1 | | 125 | 103 | | | 8.1 | 105 | 105 | 276.5 | 407 |

## Table D5. USGS NASQUAN Samples (inorganic analyses)

| Site Name | Date | Ca (mg/L) | Mg (mg/L) | Na (mg/L) | K (mg/L) | Cl (mg/L) | SO4 (mg/L) | Si (mg/L) | As (ug/L) | B (ug/L) | Fe (ug/L) | Sr (ug/L) | V (ug/L) | Li (ug/L) | Se (ug/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 1/11/2011 | 50.3 | 15.79 | 27.6 | 3.45 | 27.59 | 52.83 | 8.72 | 1.096 | 52.8 | 40.9 | 222 | 0.914 | 7.886 | 0.55 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 2/10/2011 | 40.4 | 13.13 | 25.8 | 3.05 | 30.37 | 48.01 | 7.82 | 0.955 | 46.2 | 62 | 192 | 0.938 | 6.299 | 0.54 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 2/23/2011 | 43.7 | 12.98 | 30.1 | 3.2 | 37.13 | 50.8 | 7.29 | 0.867 | 45.1 | 64.3 | 206 | 0.793 | 5.659 | 0.54 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 3/7/2011 | 42.7 | 12.71 | 22.9 | 3.26 | 33.58 | 43.71 | 7.23 | 1.048 | 43.8 | 57.7 | 176 | 1.304 | 4.883 | 0.62 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 3/22/2011 | 35 | 9.555 | 15.1 | 2.92 | 22.39 | 31.68 | 6.98 | 0.929 | 25.7 | 66.9 | 138 | 1.219 | 2.748 | 0.51 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 4/7/2011 | 40.1 | 11.61 | 17.1 | 2.96 | 22.01 | 40.68 | 6.78 | 0.954 | 28.5 | 44.9 | 149 | 0.958 | 3.377 | 0.51 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 4/21/2011 | 40.9 | 12.63 | 17.3 | 3.14 | 21.23 | 42.55 | 6.94 | 1.062 | 32.8 | 40.5 | 159 | 1.043 | 5.064 | 0.56 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 5/12/2011 | 31.8 | 8.551 | 9.58 | 2.98 | 11.62 | 29.36 | 7.05 | 1.112 | 23.3 | 72.5 | 121 | 1.374 | 2.676 | 0.42 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 5/19/2011 | 32.4 | 9.294 | 8.77 | 2.98 | 11.09 | 29.38 | 7.33 | 1.232 | 24.9 | 81.4 | 114 | 1.375 | 3.304 | 0.43 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 5/26/2011 | 32.3 | 9.857 | 9.74 | 2.93 | 11.36 | 31.72 | 6.43 | 1.318 | 25.8 | 68.4 | 119 | 1.326 | 3.636 | 0.41 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 6/2/2011 | 31.8 | 9.614 | 12 | 3.02 | 13.49 | 33.07 | 6.11 | 1.408 | 30.2 | 107 | 121 | 1.262 | 4.644 | 0.46 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 6/7/2011 | 31.9 | 10.38 | 12.5 | 3.02 | 14.41 | 36.53 | 5.8 | 1.553 | 32.7 | 79.4 | 131 | 1.275 | 4.902 | 0.48 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 6/16/2011 | 33.7 | 11.16 | 12.2 | 3.29 | 13.1 | 35.07 | 7.02 | 1.856 | 32.7 | 80 | 140 | 1.482 | 5.355 | 0.61 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 6/23/2011 | 40.5 | 14.02 | 15.3 | 3.69 | 15.59 | 44.27 | 7.7 | 2.109 | 37.7 | 40 | 171 | 1.77 | 7.3 | 0.77 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 6/30/2011 | 41.9 | 14.56 | 18 | 3.65 | 15.97 | 54.36 | 7.96 | 1.865 | 41.4 | 26.4 | 176 | 1.742 | 9.059 | 0.84 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 7/14/2011 | 41.4 | 13.84 | 17.8 | 3.94 | 14.44 | 50.91 | 8.18 | 1.95 | 39.6 | 18.8 | 176 | 2.169 | 9.095 | 0.75 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 7/28/2011 | 47.5 | 16.52 | 24.7 | 4.06 | 16.87 | 70.96 | 8.8 | 2.488 | 53.4 | 10.4 | 230 | 2.464 | 14.23 | 0.88 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 8/25/2011 | 45.4 | 17.09 | 32.2 | 4 | 18.86 | 87.43 | 8.81 | 2.984 | 63.9 | 11.1 | 268 | 3.051 | 18.27 | 0.97 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 10/25/2011 | 49.5 | 18.3 | 35 | 4.13 | 25.5 | 86.4 | 5.84 | 1.972 | 67.4 | 7.17 | 328 | 1.732 | 12.86 | 0.78 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 12/12/2011 | 30.5 | 8.491 | 16.3 | 3.02 | 16.51 | 34.87 | 6.35 | 1.065 | 37.8 | 86.3 | 159 | 1.395 | 4.33 | 0.34 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 2/8/2011 | 44.2 | 14.35 | 30.6 | 3.39 | 36.42 | 50.27 | 8.77 | 1.019 | 50.6 | 60.2 | 216 | 0.946 | 6.345 | 0.57 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 3/24/2011 | 36.2 | 10.23 | 15.8 | 3.33 | 23.1 | 32.82 | 6.25 | 0.97 | 28.6 | 70.8 | 140 | 1.248 | 3.006 | 0.47 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 4/5/2011 | 36.4 | 10.08 | 15.5 | 3.08 | 21.79 | 34.02 | 5.76 | 0.923 | 30.7 | 58.4 | 128 | 1.012 | 3.491 | 0.42 |

| Site Name | Date | Ca (mg/L) | Mg (mg/L) | Na (mg/L) | K (mg/L) | Cl (mg/L) | SO4 (mg/L) | Si (mg/L) | As (ug/L) | B (ug/L) | Fe (ug/L) | Sr (ug/L) | V (ug/L) | Li (ug/L) | Se (ug/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 4/19/2011 | 40.5 | 12.24 | 16.5 | 3.14 | 21.19 | 41.28 | 7.04 | 1.107 | 30.9 | 53.4 | 156 | 1.012 | 4.983 | 0.55 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 5/11/2011 | 32.5 | 8.7 | 11.9 | 2.99 | 14.49 | 30.08 | 6.93 | 1.165 | 28.4 | 73.4 | 125 | 1.377 | 3.217 | 0.38 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 5/18/2011 | 32.4 | 8.85 | 10.2 | 2.91 | 12.61 | 28.98 | 7.11 | 1.127 | 23.8 | 73.8 | 121 | 1.36 | 2.91 | 0.39 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 5/25/2011 | 32.7 | 9.635 | 9.61 | 3.23 | 11.51 | 29.74 | 7.21 | 1.23 | 23.5 | 71.8 | 124 | 1.302 | 3.163 | 0.39 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 6/1/2011 | 31.6 | 9.397 | 10.1 | 3.14 | 12.22 | 30.77 | 7.09 | 1.422 | 27.9 | 95.2 | 124 | 1.298 | 3.419 | 0.36 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 6/9/2011 | 31 | 9.521 | 10.7 | 3.07 | 12.97 | 32.53 | 6.57 | 1.547 | 24.9 | 65.5 | 122 | 0.921 | 3.239 | 0.4 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 6/15/2011 | 32.5 | 10.57 | 12.2 | 3.24 | 13.36 | 33.81 | 7.27 | 1.902 | 30.5 | 75.5 | 135 | 1.349 | 4.674 | 0.43 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 6/22/2011 | 37.3 | 12.24 | 13.3 | 3.57 | 14.32 | 37.01 | 7.91 | 2.107 | 33 | 31 | 150 | 1.496 | 5.423 | 0.56 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 6/29/2011 | 39.1 | 13.84 | 16.4 | 3.72 | 14.99 | 45.56 | 7.97 | 2.188 | 35.4 | 44.5 | 165 | 1.686 | 7.376 | 0.68 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 7/13/2011 | 39.9 | 13.6 | 17.9 | 3.64 | 15.01 | 48.63 | 8.39 | 2.026 | 44.9 | 18.2 | 176 | 1.873 | 8.644 | 0.7 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 7/27/2011 | 46.2 | 16.07 | 21.9 | 4.19 | 15.84 | 61.29 | 9.21 | 2.396 | 53.6 | 12.9 | 206 | 2.208 | 13.86 | 0.72 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 8/24/2011 | 45.7 | 16.99 | 29.5 | 4.27 | 17.69 | 80.27 | 8.86 | 2.895 | 56.5 | 7.85 | 246 | 2.972 | 15.23 | 0.89 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 10/27/2011 | 52.1 | 19.16 | 37.1 | 4.51 | 26.27 | 87.88 | 6.25 | 2.138 | 82.7 | 3.2 | 316 | 2.04 | 16.11 | 0.8 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 12/8/2011 | 37.9 | 12.24 | 28.8 | 3.7 | 29.86 | 55.59 | 6.09 | 1.223 | 53.7 | 71.2 | 236 | 1.406 | 5.702 | 0.37 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 1/10/2011 | 47.5 | 15.05 | 21 | 3.08 | 20.8 | 50.03 | 8.67 | 1.009 | 47.8 | 23.2 | 201 | 0.814 | 7.779 | 0.57 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 2/9/2011 | 49.5 | 15.87 | 23.2 | 2.97 | 26.39 | 50.8 | 8.08 | 1.002 | 47 | 38.4 | 199 | 0.81 | 7.27 | 0.67 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 2/22/2011 | 44.1 | 13.41 | 24.6 | 2.92 | 30.54 | 50.46 | 7.17 | 0.833 | 44.6 | 42.6 | 199 | 0.713 | 6.445 | 0.6 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 3/8/2011 | 42 | 12.68 | 22.8 | 3.28 | 34.73 | 43.93 | 7.07 | 1.071 | 41.9 | 68.1 | 176 | 1.348 | 4.738 | 0.61 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 3/21/2011 | 33.2 | 9.104 | 14 | 2.73 | 22.33 | 31.27 | 6.63 | 0.889 | 23.5 | 96.9 | 126 | 1.243 | 2.76 | 0.49 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 4/6/2011 | 40.3 | 11.64 | 15.5 | 3.06 | 20.34 | 35.86 | 6.69 | 0.938 | 26.7 | 44.1 | 141 | 0.951 | 3.097 | 0.52 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 4/20/2011 | 40.9 | 13.15 | 16.1 | 3.07 | 20.82 | 43.23 | 7.07 | 1.047 | 32.2 | 30.3 | 155 | 1.028 | 5.125 | 0.55 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 5/9/2011 | 31.4 | 8.849 | 10.8 | 2.96 | 14.18 | 31.61 | 7.27 | 1.111 | 26.3 | 112 | 123 | 1.24 | 3.205 | 0.43 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 5/16/2011 | 32.3 | 9.033 | 9.02 | 2.97 | 11.3 | 29.55 | 7.65 | 1.304 | 24.1 | 130 | 114 | 1.47 | 2.657 | 0.47 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 5/23/2011 | 32.1 | 9.702 | 8.94 | 3.17 | 11.12 | 30.17 | 7.07 | 1.222 | 20.5 | 77.4 | 116 | 1.304 | 2.435 | 0.45 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 5/30/2011 | 34.1 | 10.37 | 10.5 | 2.84 | 12.35 | 34.87 | 5.95 | 1.373 | 28.7 | 42.6 | 124 | 1.181 | 4.201 | 0.47 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 6/6/2011 | 35.9 | 11.79 | 13.1 | 3.11 | 14.93 | 41.57 | 6.09 | 1.501 | 31.7 | 61.8 | 140 | 1.218 | 5.307 | 0.55 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 6/13/2011 | 37 | 12 | 12.9 | 3.29 | 14.37 | 40.26 | 6.48 | 1.708 | 32.2 | 23.6 | 149 | 1.335 | 5.714 | 0.57 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 6/20/2011 | 42.2 | 14.31 | 14.2 | 3.71 | 15.08 | 44.03 | 7.96 | 1.978 | 33.2 | 18.4 | 165 | 1.755 | 6.132 | 0.76 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 6/27/2011 | 45.6 | 15.7 | 17.9 | 3.74 | 16.06 | 53.61 | 7.86 | 2.032 | 41.6 | 30.1 | 179 | 1.961 | 9.041 | 0.86 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 7/11/2011 | 39.6 | 14.21 | 18.7 | 3.72 | 14.94 | 54.11 | 7.82 | 1.83 | 46.1 | 9.2 | 177 | 2 | 10.15 | 0.78 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 7/25/2011 | 47.3 | 16.48 | 22.9 | 4.26 | 16.6 | 68.9 | 9.01 | 2.514 | 50.2 | 15.6 | 224 | 2.272 | 12.96 | 0.8 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 8/22/2011 | 48.5 | 18 | 31.4 | 4.43 | 16.99 | 86.68 | 9.09 | 2.89 | 62.4 | 12.5 | 266 | 2.959 | 17.38 | 0.95 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 10/24/2011 | 51 | 18.69 | 35.4 | 4.31 | 24.57 | 90.72 | 5.85 | 2.095 | 73.1 | 16.7 | 325 | 1.759 | 13.46 | 0.84 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 12/6/2011 | 35.4 | 11.4 | 16.8 | 3.32 | 16.75 | 46.22 | 6.58 | 1.19 | 46.8 | 74.2 | 189 | 1.352 | 5.846 | 0.42 |
| WAX LAKE OUTLET AT CALUMET, LA | 2/8/2011 | 43.7 | 14.45 | 30.6 | 3.39 | 36.69 | 51.4 | 8.63 | 0.995 | 49.5 | 56.7 | 218 | 0.933 | 6.206 | 0.54 |
| WAX LAKE OUTLET AT CALUMET, LA | 3/24/2011 | 35.1 | 9.462 | 15.3 | 3.15 | 22.63 | 32.28 | 6.67 | 0.935 | 27.8 | 99.9 | 134 | 1.291 | 2.871 | 0.49 |
| WAX LAKE OUTLET AT CALUMET, LA | 4/5/2011 | 38.4 | 10.86 | 16.3 | 3.21 | 21.45 | 34.52 | 6.7 | 1.004 | 32.2 | 94.2 | 137 | 1.179 | 3.792 | 0.48 |
| WAX LAKE OUTLET AT CALUMET, LA | 4/19/2011 | 40.9 | 12.5 | 16.6 | 3.14 | 21.49 | 42.1 | 7.2 | 1.115 | 31.8 | 35 | 157 | 1.003 | 5.076 | 0.57 |
| WAX LAKE OUTLET AT CALUMET, LA | 5/11/2011 | 32.3 | 8.662 | 12 | 3.03 | 14.41 | 30.01 | 7.33 | 1.215 | 28.8 | 114 | 125 | 1.514 | 3.257 | 0.38 |

| Site Name | Date | Ca (mg/L) | Mg (mg/L) | Na (mg/L) | K (mg/L) | Cl (mg/L) | SO4 (mg/L) | Si (mg/L) | As (ug/L) | B (ug/L) | Fe (ug/L) | Sr (ug/L) | V (ug/L) | Li (ug/L) | Se (ug/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WAX LAKE OUTLET AT CALUMET, LA | 5/18/2011 | 32.7 | 8.867 | 9.56 | 3.02 | 11.35 | 28.77 | 7.35 | 1.182 | 24.1 | 82.5 | 121 | 1.467 | 2.949 | 0.43 |
| WAX LAKE OUTLET AT CALUMET, LA | 5/25/2011 | 33.3 | 9.522 | 9.2 | 3 | 11.31 | 30.31 | 7.23 | 1.286 | 23 | 105 | 122 | 1.389 | 3.183 | 0.44 |
| WAX LAKE OUTLET AT CALUMET, LA | 6/1/2011 | 31.3 | 9.467 | 10.6 | 2.95 | 12.69 | 31.75 | 6.52 | 1.392 | 27.5 | 86.8 | 123 | 1.386 | 3.567 | 0.39 |
| WAX LAKE OUTLET AT CALUMET, LA | 6/9/2011 | 32.5 | 10.28 | 12.6 | 3.09 | 13.9 | 34.94 | 6.26 | 1.583 | 27.1 | 104 | 133 | 1.238 | 3.853 | 0.5 |
| WAX LAKE OUTLET AT CALUMET, LA | 6/15/2011 | 31.3 | 10.57 | 12.6 | 3.23 | 13.39 | 34.11 | 7.1 | 1.789 | 30.9 | 93 | 137 | 1.521 | 4.742 | 0.48 |
| WAX LAKE OUTLET AT CALUMET, LA | 6/22/2011 | 36.4 | 12.25 | 13.4 | 3.44 | 14.57 | 38.69 | 7.25 | 2.011 | 32.2 | 22.6 | 151 | 1.634 | 5.615 | 0.65 |
| WAX LAKE OUTLET AT CALUMET, LA | 6/29/2011 | 38.8 | 14.33 | 16.9 | 3.76 | 15.74 | 48.97 | 7.72 | 2.091 | 36.6 | 30.3 | 170 | 1.843 | 7.948 | 0.75 |
| WAX LAKE OUTLET AT CALUMET, LA | 7/13/2011 | 40.5 | 13.63 | 18.4 | 3.67 | 15.01 | 50.54 | 8.11 | 1.986 | 44.4 | 38.3 | 178 | 1.979 | 8.79 | 0.76 |
| WAX LAKE OUTLET AT CALUMET, LA | 7/27/2011 | 46.9 | 16.35 | 22.7 | 4.27 | 16.15 | 64.69 | 8.93 | 2.455 | 55.8 | 12.7 | 214 | 2.339 | 14.42 | 0.74 |
| WAX LAKE OUTLET AT CALUMET, LA | 8/24/2011 | 46 | 17.26 | 29.9 | 4.43 | 17.81 | 82.19 | 8.83 | 2.799 | 57.9 | 13.9 | 251 | 2.994 | 15.47 | 0.87 |
| WAX LAKE OUTLET AT CALUMET, LA | 10/27/2011 | 51.4 | 18.71 | 36.7 | 4.41 | 26.3 | 88.19 | 6.11 | 2.07 | 82.8 | 8.63 | 312 | 2.011 | 16.13 | 0.8 |
| WAX LAKE OUTLET AT CALUMET, LA | 12/8/2011 | 36.7 | 12.15 | 30.3 | 3.68 | 29.79 | 54.88 | 6.27 | 1.292 | 54.4 | 70.9 | 236 | 1.433 | 5.716 | 0.36 |

## Table D5. USGS NASQUAN Samples (inorganic analyses)

| Site Name | Date | NH4-N (mg/L) | NO2-N (mg/L) | NH4+orgN-N Filt (mg/L) | NH4+orgN-N unfilt (mg/L) | NO3+NO2-N (mg/L) | Phophorus filt (mg/L) | Phophorus unfilt (mg/L) | Orthophos filt (mg/L) | org C filt (mg/L) | Inorg C TSS (mg/L) | Org C TSS (mg/L) | Inorg C filt (mg/L) | Inorg +org C TSS (mg/L) | Susp. Part. N (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 1/11/2011 | 0.058 | 0.009 | 0.3 | 0.58 | 1.463 | 0.19 | 0.06 | 0.054 | 3.514 | 0 | 2.2 | | 2.216 | 0.28 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 2/10/2011 | 0.064 | 0.01 | 0.4 | 0.68 | 1.427 | 0.18 | 0.06 | 0.054 | 4.264 | 0.1 | 2.118 | | 2.216 | 0.336 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 2/23/2011 | 0.045 | 0.012 | 0.3 | 0.61 | 1.348 | 0.16 | 0.05 | 0.049 | 3.845 | 0 | 1.952 | | 1.952 | 0.232 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 3/7/2011 | 0.056 | 0.036 | 0.5 | 1.31 | 2.111 | 0.57 | 0.07 | 0.069 | 3.863 | 0 | 10.37 | | 10.4 | 0.975 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 3/22/2011 | 0.026 | 0.019 | 0.3 | 0.64 | 1.766 | 0.25 | 0.06 | 0.051 | 3.695 | 0 | 3.037 | | 3.037 | 0.325 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 4/7/2011 | 0.014 | 0.014 | 0.3 | 0.47 | 1.66 | 0.15 | 0.06 | 0.05 | 3.601 | 0.1 | 1.609 | | 1.737 | 0.175 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 4/21/2011 | 0.01 | 0.019 | 0.3 | 0.58 | 1.708 | 0.19 | 0.07 | 0.062 | 3.451 | 0 | 3.533 | | 3.533 | 0.328 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 5/12/2011 | 0.025 | 0.036 | 0.3 | 0.57 | 1.153 | 0.19 | 0.05 | 0.048 | 4.107 | 0 | 3.035 | | 3.035 | 0.343 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 5/19/2011 | 0.017 | 0.03 | 0.3 | 0.54 | 1.165 | 0.24 | 0.05 | 0.046 | 4.425 | 0 | 2.52 | | 2.535 | 0.306 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 5/26/2011 | 0.016 | 0.019 | 0.3 | 0.48 | 1.21 | 0.17 | 0.07 | 0.055 | 4.386 | 0 | 2.443 | | 2.481 | 0.17 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 6/2/2011 | 0.015 | 0.007 | 0.4 | 0.44 | 0.927 | 0.17 | 0.08 | 0.063 | 5.387 | 0 | 1.661 | | 1.661 | 0.224 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 6/7/2011 | 0.022 | 0.004 | 0.4 | 0.49 | 0.992 | 0.17 | 0.08 | 0.069 | 5.256 | 0 | 1.307 | | 1.317 | 0.124 |

| Site Name | Date | NH4-N (mg/L) | NO2-N (mg/L) | NH4+orgN-N Filt (mg/L) | NH4+orgN-N unfilt (mg/L) | NO3+NO2-N (mg/L) | Phophorus filt (mg/L) | Phophorus unfilt (mg/L) | Orthophos filt (mg/L) | org C filt (mg/L) | Inorg C TSS (mg/L) | Org C TSS (mg/L) | Inorg C filt (mg/L) | Inorg +org C TSS (mg/L) | Susp. Part. N (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 6/16/2011 | 0.014 | 0.004 | 0.5 | 0.63 | 1.505 | 0.19 | 0.09 | 0.083 | 5.116 | 0.1 | 1.604 | | 1.687 | 0.163 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 6/23/2011 | 0.016 | 0.005 | 0.3 | 0.68 | 1.837 | 0.22 | 0.1 | 0.093 | 4.94 | 0 | 2.37 | | 2.37 | 0.289 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 6/30/2011 | 0.01 | 0.001 | 0.4 | 0.65 | 1.891 | 0.27 | 0.1 | 0.087 | 4.346 | 0.1 | 1.31 | | 1.398 | 0.148 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 7/14/2011 | 0.01 | 0.002 | 0.4 | 0.63 | 1.806 | 0.27 | 0.09 | 0.089 | 4.574 | 0.5 | 2.884 | | 3.414 | 0.338 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 7/28/2011 | 0.01 | 0.001 | 0.4 | 0.64 | 1.512 | 0.3 | 0.1 | 0.102 | 4.64 | 0 | 4.142 | | 4.142 | 0.388 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 8/25/2011 | 0.01 | 0.001 | 0.3 | 0.49 | 0.985 | 0.2 | 0.11 | 0.116 | 4.149 | 0 | 2.079 | | 2.079 | 0.154 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 10/25/2011 | 0.01 | 0.001 | 0.3 | 0.36 | 0.6493 | 0.13 | 0.07 | 0.071 | 3.507 | 0 | 1.302 | | 1.302 | 0.119 |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 12/12/2011 | 0.031 | 0.009 | 0.3 | 0.69 | 0.8324 | 0.27 | 0.07 | 0.061 | | | | | | |
| (COE) ATCHAFALAYA RIVER AT MELVILLE, LA | 1/19/2012 | 0.028 | 0.009 | 0.3 | 0.65 | 0.8588 | 0.19 | 0.06 | 0.051 | | | | | | |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 2/8/2011 | 0.091 | 0.011 | 0.4 | 0.86 | 1.531 | 0.19 | 0.06 | 0.055 | 4.641 | 0 | 2.003 | | 2.016 | 0.301 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 3/24/2011 | 0.022 | 0.018 | 0.4 | 0.67 | 1.572 | 0.26 | 0.06 | 0.054 | 4.097 | 0.3 | 3.052 | | 3.342 | 0.211 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 4/5/2011 | 0.024 | 0.013 | 0.3 | 0.5 | 1.341 | 0.18 | 0.05 | 0.048 | 4.023 | 0.1 | 2.142 | | 2.197 | 0.249 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 4/19/2011 | 0.01 | 0.019 | 0.3 | 0.54 | 1.573 | 0.18 | 0.07 | 0.061 | 3.872 | 0 | 2.961 | | 3.008 | 0.327 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 5/11/2011 | 0.025 | 0.029 | 0.3 | 0.67 | 0.956 | 0.29 | 0.05 | 0.045 | 4.436 | 0.1 | 3.155 | | 3.273 | 0.302 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 5/18/2011 | 0.036 | 0.026 | 0.3 | 0.61 | 0.914 | 0.34 | 0.04 | 0.03 | 4.385 | 0 | 4.747 | | 4.747 | 0.388 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 5/25/2011 | 0.034 | 0.017 | 0.3 | 0.54 | 0.917 | 0.2 | 0.04 | 0.034 | 4.513 | 0 | 2.469 | | 2.469 | 0.201 |

| Site Name | Date | NH4-N (mg/L) | NO2-N (mg/L) | NH4+orgN-N Filt (mg/L) | NH4+orgN-N unfilt (mg/L) | NO3+NO2-N (mg/L) | Phophorus filt (mg/L) | Phophorus unfilt (mg/L) | Orthophos filt (mg/L) | org C filt (mg/L) | Inorg C TSS (mg/L) | Org C TSS (mg/L) | Inorg C filt (mg/L) | Inorg +org C TSS (mg/L) | Susp. Part. N (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 6/1/2011 | 0.026 | 0.008 | 0.5 | 0.54 | 0.781 | 0.17 | 0.06 | 0.047 | 4.947 | 0.1 | 2.025 | | 2.078 | 0.22 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 6/9/2011 | 0.022 | 0.008 | 0.3 | 0.42 | 0.644 | 0.17 | 0.08 | 0.071 | 5.116 | 0 | 1.251 | | 1.251 | 0.172 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 6/15/2011 | 0.017 | 0.007 | 0.5 | 0.53 | 0.959 | 0.18 | 0.09 | 0.084 | 5.383 | 0.3 | 12.18 | | 12.52 | 1.68 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 6/22/2011 | 0.013 | 0.003 | 0.4 | 0.54 | 1.289 | 0.19 | 0.11 | 0.1 | 5.211 | 0 | 1.989 | | 2.031 | 0.246 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 6/29/2011 | 0.01 | 0.003 | 0.4 | 0.62 | 1.425 | 0.27 | 0.11 | 0.107 | 4.782 | 0.2 | 2.787 | | 2.945 | 0.39 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 7/13/2011 | 0.01 | 0.003 | 0.4 | 0.61 | 1.538 | 0.25 | 0.1 | 0.1 | 4.352 | 0.2 | 2.956 | | 3.175 | 0.351 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 7/27/2011 | 0.011 | 0.002 | 0.4 | 0.54 | 1.321 | 0.24 | 0.11 | 0.11 | 4.511 | 0.8 | 2.141 | | 2.965 | 0.282 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 8/24/2011 | 0.01 | 0.002 | 0.3 | 0.45 | 0.992 | 0.23 | 0.12 | 0.111 | 4.103 | 0 | 1.887 | | 1.919 | 0.183 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 10/27/2011 | 0.01 | 0.001 | 0.3 | 0.41 | 0.6618 | 0.13 | 0.07 | 0.074 | 3.413 | 0 | 0.965 | | 0.965 | 0.1 |
| LOWER ATCHAFALAYA RIVER AT MORGAN CITY, LA | 12/8/2011 | 0.018 | 0.005 | 0.3 | 0.71 | 0.8158 | 0.29 | 0.07 | 0.063 | | | | | | |
| | | | | | | | | | | | | | | | |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 1/10/2011 | 0.055 | 0.008 | 0.4 | 0.57 | 1.503 | 0.19 | 0.06 | 0.054 | 3.529 | 0.1 | 2.338 | | 2.432 | 0.316 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 2/9/2011 | 0.037 | 0.01 | 0.3 | 0.57 | 1.748 | 0.16 | 0.06 | 0.051 | 3.377 | 0 | 2.005 | | 2.005 | 0.287 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 2/22/2011 | 0.038 | 0.012 | 0.4 | 0.57 | 1.549 | 0.15 | 0.05 | 0.049 | 3.492 | 0 | 2.411 | | 2.419 | 0.266 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 3/8/2011 | 0.049 | 0.037 | 0.4 | 1.31 | 2.265 | 0.54 | 0.07 | 0.069 | 3.563 | 0.3 | 11.81 | | 12.06 | 0.911 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 3/21/2011 | 0.02 | 0.019 | 0.3 | 0.67 | 1.839 | 0.25 | 0.06 | 0.051 | 3.601 | 0 | 2.853 | | 2.857 | 0.312 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 4/6/2011 | 0.011 | 0.014 | 0.3 | 0.44 | 1.641 | 0.15 | 0.05 | 0.049 | 3.521 | 0 | 1.408 | | 1.444 | 0.175 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 4/20/2011 | 0.011 | 0.02 | 0.2 | 0.53 | 1.75 | 0.23 | 0.07 | 0.062 | 3.45 | 0 | 2.755 | | 2.755 | 0.361 |

| Site Name | Date | NH4-N (mg/L) | NO2-N (mg/L) | NH4+orgN-N Filt (mg/L) | NH4+orgN-N unfilt (mg/L) | NO3+NO2-N (mg/L) | Phophorus filt (mg/L) | Phophorus unfilt (mg/L) | Orthophos filt (mg/L) | org C filt (mg/L) | Inorg C TSS (mg/L) | Org C TSS (mg/L) | Inorg C filt (mg/L) | Inorg +org C TSS (mg/L) | Susp. Part. N (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 5/9/2011 | 0.022 | 0.033 | 0.4 | 0.54 | 1.107 | 0.15 | 0.06 | 0.057 | 4.386 | 0.1 | 1.623 | | 1.687 | 0.198 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 5/16/2011 | 0.019 | 0.031 | 0.3 | 0.47 | 1.201 | 0.16 | 0.06 | 0.054 | 4.152 | 0 | 1.592 | | 1.592 | 0.157 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 5/23/2011 | 0.01 | 0.019 | 0.3 | 0.47 | 1.226 | 0.15 | 0.06 | 0.055 | 3.832 | 0.1 | 2.848 | | 2.935 | 0.223 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 5/30/2011 | 0.013 | 0.007 | 0.3 | 0.46 | 1.142 | 0.14 | 0.07 | 0.063 | 4.475 | 0 | 1.09 | | 1.09 | 0.155 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 6/6/2011 | 0.018 | 0.003 | 0.3 | 0.47 | 1.147 | 0.15 | 0.08 | 0.065 | 4.041 | 0 | 1.2 | | 1.228 | 0.145 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 6/13/2011 | 0.01 | 0.003 | 0.4 | 0.45 | 1.468 | 0.18 | 0.08 | 0.075 | 4.307 | 0.3 | 1.263 | | 1.61 | 0.211 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 6/20/2011 | 0.01 | 0.003 | 0.3 | 0.53 | 1.997 | 0.18 | 0.09 | 0.087 | 4.32 | 0.2 | 1.956 | | 2.154 | 0.187 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 6/27/2011 | 0.01 | 0.001 | 0.4 | 0.65 | 1.903 | 0.25 | 0.1 | 0.094 | 4.181 | 0.1 | 3.391 | | 3.448 | 0.378 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 7/11/2011 | 0.01 | 0.001 | 0.3 | 0.63 | 1.907 | 0.27 | 0.09 | 0.086 | 4.044 | 0 | 3.562 | | 3.562 | 0.372 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 7/25/2011 | 0.01 | 0.001 | 0.3 | 0.56 | 1.604 | 0.26 | 0.1 | 0.102 | 4.018 | 0.4 | 2.664 | | 3.112 | 0.309 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 8/22/2011 | 0.015 | 0.001 | 0.3 | 0.5 | 1.107 | 0.27 | 0.11 | 0.115 | 3.928 | 0.1 | 2.096 | | 2.196 | 0.286 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 10/24/2011 | 0.015 | 0.003 | 0.3 | 0.44 | 0.7085 | 0.18 | 0.07 | 0.076 | 3.463 | 0 | 1.57 | | 1.57 | 0.191 |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 12/6/2011 | 0.01 | 0.004 | 0.3 | 0.75 | 0.8917 | 0.34 | 0.07 | 0.066 | | | | | | |
| MISSISSIPPI R NR ST. FRANCISVILLE, LA | 1/17/2012 | 0.013 | 0.01 | 0.3 | 0.53 | 1.0087 | 0.18 | 0.06 | 0.054 | | | | | | |
| WAX LAKE OUTLET AT CALUMET, LA | 2/8/2011 | 0.089 | 0.011 | 0.4 | 0.72 | 1.513 | 0.19 | 0.06 | 0.055 | 4.592 | 0 | 2.248 | | 2.262 | 0.351 |
| WAX LAKE OUTLET AT CALUMET, LA | 3/24/2011 | 0.019 | 0.019 | 0.4 | 0.69 | 1.647 | 0.26 | 0.05 | 0.048 | 3.908 | 0.1 | 3.117 | | 3.261 | 0.223 |

| Site Name | Date | NH4-N (mg/L) | NO2-N (mg/L) | NH4+orgN-N Filt (mg/L) | NH4+orgN-N unfilt (mg/L) | NO3+NO2-N (mg/L) | Phophorus filt (mg/L) | Phophorus unfilt (mg/L) | Orthophos filt (mg/L) | org C filt (mg/L) | Inorg C TSS (mg/L) | Org C TSS (mg/L) | Inorg C filt (mg/L) | Inorg +org C TSS (mg/L) | Susp. Part. N (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WAX LAKE OUTLET AT CALUMET, LA | 4/5/2011 | 0.025 | 0.013 | 0.3 | 0.51 | 1.475 | 0.18 | 0.05 | 0.045 | 3.672 | 0.1 | 1.95 | | 2 | 0.181 |
| WAX LAKE OUTLET AT CALUMET, LA | 4/19/2011 | 0.01 | 0.019 | 0.3 | 0.51 | 1.649 | 0.18 | 0.07 | 0.063 | 3.866 | 0.1 | 2.742 | | 2.804 | 0.269 |
| WAX LAKE OUTLET AT CALUMET, LA | 5/11/2011 | 0.023 | 0.03 | 0.4 | 0.61 | 0.991 | 0.26 | 0.05 | 0.047 | 4.469 | 0.1 | 3.177 | | 3.249 | 0.35 |
| | | | | | | | | | | | | | | | |
| WAX LAKE OUTLET AT CALUMET, LA | 5/18/2011 | 0.03 | 0.029 | 0.3 | 0.64 | 1.07 | 0.28 | 0.04 | 0.03 | 4.413 | 0.1 | 3.353 | | 3.424 | 0.278 |
| WAX LAKE OUTLET AT CALUMET, LA | 5/25/2011 | 0.031 | 0.019 | 0.3 | 0.56 | 1.078 | 0.22 | 0.05 | 0.039 | 4.307 | 0 | 4.36 | | 4.383 | 0.371 |
| WAX LAKE OUTLET AT CALUMET, LA | 6/1/2011 | 0.025 | 0.009 | 0.4 | 0.5 | 0.892 | 0.19 | 0.06 | 0.048 | 4.788 | 0.1 | 2.483 | | 2.552 | 0.313 |
| WAX LAKE OUTLET AT CALUMET, LA | 6/9/2011 | 0.014 | 0.008 | 0.4 | 0.49 | 0.852 | 0.19 | 0.07 | 0.065 | 5.218 | 0 | 2.655 | | 2.676 | 0.234 |
| WAX LAKE OUTLET AT CALUMET, LA | 6/15/2011 | 0.013 | 0.008 | 0.5 | 0.56 | 1.172 | 0.18 | 0.08 | 0.073 | 5.294 | 0 | 2.037 | | 2.043 | 0.188 |
| WAX LAKE OUTLET AT CALUMET, LA | 6/22/2011 | 0.011 | 0.003 | 0.4 | 0.54 | 1.539 | 0.19 | 0.09 | 0.086 | 5.023 | 0 | 2.014 | | 2.014 | 0.242 |
| WAX LAKE OUTLET AT CALUMET, LA | 6/29/2011 | 0.01 | 0.002 | 0.4 | 0.7 | 1.638 | 0.27 | 0.1 | 0.091 | 4.748 | 0 | 3.583 | | 3.583 | 0.427 |
| WAX LAKE OUTLET AT CALUMET, LA | 7/13/2011 | 0.01 | 0.002 | 0.4 | 0.6 | 1.695 | 0.26 | 0.09 | 0.089 | 4.295 | 0 | 3.399 | | 3.399 | 0.301 |
| WAX LAKE OUTLET AT CALUMET, LA | 7/27/2011 | | | 0.4 | 0.49 | | 0.22 | 0.11 | | 4.519 | 0.2 | 2.987 | | 3.147 | 0.261 |
| WAX LAKE OUTLET AT CALUMET, LA | 8/24/2011 | 0.01 | 0.001 | 0.3 | 0.44 | 1.056 | 0.23 | 0.15 | 0.112 | 3.932 | 0 | 1.658 | | 1.658 | 0.192 |
| WAX LAKE OUTLET AT CALUMET, LA | 10/27/2011 | 0.01 | 0.001 | 0.3 | 0.47 | 0.6683 | 0.13 | 0.07 | 0.073 | 3.389 | 0 | 1.085 | | 1.109 | 0.154 |
| WAX LAKE OUTLET AT CALUMET, LA | 12/8/2011 | 0.014 | 0.004 | 0.3 | 0.67 | 0.8347 | 0.29 | 0.07 | 0.063 | | | | | | |

## Table D6. Louisiana State University Department of Renewable Natural Resources Analyses

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | Depth (m) | dD_H (per mil) | d18_16 (per mil) |
|---|---|---|---|---|---|---|---|---|
| 5/19/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | -34 | -5.8 |
| 5/19/2011 | USFWS | 30.356100 | -91.547414 | KDE | King's Ditch East | | -37 | -6.5 |
| 5/19/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | -36 | -6.0 |
| 5/19/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | -35 | -6.3 |
| 5/19/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | -30 | -5.2 |
| 5/19/2011 | USFWS | 30.236028 | -91.445910 | UF | Upper Flats | | -36 | -6.4 |
| 5/19/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | -33 | -5.8 |
| 5/19/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | -36 | -6.5 |
| 5/19/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | 4.18 | -36 | -5.9 |
| 5/19/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 4.18 | -35 | -5.4 |
| 5/19/2011 | LDWF | 30.283111 | -91.686306 | 35 | River | 4.18 | -35 | -5.6 |
| 5/19/2011 | LDWF | 30.008833 | -91.270139 | 6 | Bayou Postillion | 4.70 | -36 | -6.2 |
| 5/19/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | 9.30 | -36 | -6.1 |
| 5/19/2011 | LDWF | 29.958889 | -91.265083 | 8 | Intracoastal Waterway | 10.00 | -37 | -6.6 |
| 5/19/2011 | LDWF | 29.901056 | -91.294750 | 9 | Stream | 5.10 | -36 | -6.2 |
| 5/19/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | 3.50 | -36 | -6.2 |
| 5/19/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | 6.80 | -38 | -6.8 |
| 5/19/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | 3.00 | -37 | -6.1 |
| 5/19/2011 | LDWF | 29.795056 | -91.177472 | 13 | Little Bayou Sorrel | 3.40 | -36 | -6.2 |
| 5/19/2011 | LDWF | 29.803722 | -91.230778 | 14 | Little Bayou Sorrel | 5.20 | -37 | -6.6 |
| 5/19/2011 | LDWF | 29.761361 | -91.217528 | 17 | Flat Lake | 0.80 | -38 | -6.3 |
| 5/19/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | 1.30 | -37 | -6.1 |
| 5/19/2011 | LDWF | 29.757306 | -91.193167 | 19 | Flat Lake | 1.60 | -35 | -5.7 |
| 5/19/2011 | LDWF | 29.765694 | -91.177472 | 20 | Intracoastal Waterway | 1.10 | -36 | -5.8 |
| 5/19/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 2.60 | -37 | -6.5 |
| 5/19/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 5.10 | -35 | -5.9 |
| 5/19/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 1.20 | -37 | -6.4 |
| 5/19/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | 3.40 | -37 | -6.5 |
| 5/19/2011 | LDWF | 29.759611 | -91.207500 | Chem-LSU-1 | Mid Flat Lake | | | |
| 5/19/2011 | USGS | 30.061047 | -91.593364 | 26 | GA Cut at Grand Bayou | 6.16 | -37 | -6.2 |
| 5/19/2011 | USGS | 30.083667 | -91.618750 | 27 | Bayou Benoit Boat Launch | 6.40 | -38 | -6.4 |
| 5/19/2011 | USGS | 29.993222 | -91.522986 | 28 | Buffalo Cove | 6.58 | -36 | -6.2 |
| 5/19/2011 | USGS | 29.980925 | -91.534581 | 29 | GA Cut At Buffalo Cove | 6.22 | -38 | -6.4 |
| 5/19/2011 | USGS | 29.890646 | -91.458941 | 30 | Grand Bayou | 6.52 | -38 | -6.4 |
| 5/19/2011 | USGS | 29.901583 | -91.485170 | 101 | Grand Lake | 6.46 | -36 | -6.0 |
| 5/19/2011 | USGS | 29.822917 | -91.379750 | 102 | Grand Lake Channel | 6.40 | -37 | -6.2 |
| 5/19/2011 | USGS | 30.118500 | -91.472639 | 1 | Sorrel at Atchafalaya | 10.39 | -37 | -6.2 |
| 5/19/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | | -37 | -6.1 |
| 5/19/2011 | USGS | 30.078167 | -91.313278 | 3 | Byupigeon at GIWW | 6.49 | -37 | -6.2 |
| 5/19/2011 | USGS | 30.066250 | -91.349444 | 4 | Bayou Pigeon near Big Pigeon | 6.04 | -37 | -6.2 |
| 5/19/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | 4.45 | -36 | -6.5 |
| 5/19/2011 | USGS | 30.240583 | -91.534694 | 33 | Grand River near Atch | 9.02 | -36 | -6.3 |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | Depth (m) | dD_H (per mil) | d18_16 (per mil) |
|---|---|---|---|---|---|---|---|---|
| 5/19/2011 | USGS | 30.231417 | -91.427583 | 34 | GIWW S of Grand R. | 8.17 | -36 | -6.4 |
| 5/19/2011 | USGS | 30.086750 | -91.436117 | DK-1 | East Grand Lake | 4.42 | -35 | -6.2 |
| 5/26/2011 | USFWS | 30.356100 | -91.547414 | KDE | King's Ditch East | | -37 | -6.1 |
| 5/26/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | -37 | -6.3 |
| 5/26/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | -37 | -6.3 |
| 5/26/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | -37 | -6.4 |
| 5/26/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | -37 | -6.5 |
| 5/26/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | -37 | -6.6 |
| 5/26/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | | |
| 5/26/2011 | USFWS | 30.356100 | -91.547414 | KDE | King's Ditch East | | | |
| 5/26/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | | |
| 5/26/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | | |
| 5/26/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | | |
| 5/26/2011 | USFWS | 30.236028 | -91.445910 | UF | Upper Flats | | | |
| 5/26/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | | |
| 5/26/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | | |
| 5/26/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | 0.65 | | |
| 5/26/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 10.86 | | |
| 5/26/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 4.00 | | |
| 5/26/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 3.20 | | |
| 5/26/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | current too strong | | |
| 5/26/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | 3.60 | | |
| 5/26/2011 | LDWF | 29.759611 | -91.207500 | Chem-LSU-1 | Mid Flat Lake | 2.40 | | |
| 5/26/2011 | USGS | 30.061047 | -91.593364 | 26 | GA Cut at Grand Bayou | | -37 | -6.6 |
| 5/26/2011 | USGS | 30.083667 | -91.618750 | 27 | Bayou Benoit Boat Launch | | -37 | -6.6 |
| 5/26/2011 | USGS | 29.993222 | -91.522986 | 28 | Buffalo Cove | | -37 | -6.5 |
| 5/26/2011 | USGS | 29.822917 | -91.379750 | 102 | Grand Lake Channel | | -37 | -6.5 |
| 5/26/2011 | USGS | 30.118500 | -91.472639 | 1 | Sorrel at Atchafalaya | 10.09 | -37 | -6.1 |
| 5/26/2011 | USGS | 30.105611 | -91.416889 | 1.5 | Gas pipeline off Indigo | 6.31 | -35 | -5.4 |
| 5/26/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | 9.51 | -37 | -5.6 |
| 5/26/2011 | USGS | 30.078167 | -91.313278 | 3 | Byupigeon at GIWW | 7.04 | -36 | -6.2 |
| 5/26/2011 | USGS | 30.066250 | -91.349444 | 4 | Bayou Pigeon near Big Pigeon | 7.13 | -32 | -4.3 |
| 5/26/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | 5.06 | -36 | -5.8 |
| 5/26/2011 | USGS | 30.240583 | -91.534694 | 33 | Grand River near Atch | | -36 | -5.5 |
| 5/26/2011 | USGS | 30.231417 | -91.427583 | 34 | GIWW S of Grand R. | 10.97 | -36 | -5.8 |
| 5/26/2011 | USGS | 30.236833 | -91.598833 | GR | Grand River | | -37 | -6.3 |
| 5/26/2011 | USGS | 30.027722 | -91.468667 | NE | North end of East Grand Lake | 5.91 | -37 | -6.3 |
| 6/2/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | -38 | -6.2 |
| 6/2/2011 | USFWS | 30.356100 | -91.547414 | KDE | King's Ditch East | | -38 | -6.8 |
| 6/2/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | -39 | -6.6 |
| 6/2/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | -38 | -6.5 |
| 6/2/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | | |
| 6/2/2011 | USFWS | 30.236028 | -91.445910 | UF | Upper Flats | | -39 | -6.4 |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | Depth (m) | dD_H (per mil) | d18_16 (per mil) |
|---|---|---|---|---|---|---|---|---|
| 6/2/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | -38 | -6.6 |
| 6/2/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | -37 | -6.0 |
| 6/2/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | | -35 | -5.5 |
| 6/2/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | 8.00 | -34 | -5.6 |
| 6/2/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | | -35 | -5.0 |
| 6/2/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 11.80 | -34 | -5.7 |
| 6/2/2011 | LDWF | 30.283111 | -91.686306 | 35 | River | 10.61 | -35 | -5.9 |
| 6/2/2011 | LDWF | 30.283111 | -91.686306 | 35 | River | | -34 | -5.3 |
| 6/2/2011 | LDWF | 30.008833 | -91.270139 | 6 | Bayou Postillion | 4.20 | -38 | -6.3 |
| 6/2/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | 5.00 | -36 | -6.2 |
| 6/2/2011 | LDWF | 29.958889 | -91.265083 | 8 | Intracoastal Waterway | 8.50 | -36 | -6.3 |
| 6/2/2011 | LDWF | 29.901056 | -91.294750 | 9 | Stream | 5.20 | -36 | -6.1 |
| 6/2/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | 7.00 | -35 | -6.0 |
| 6/2/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | 6.50 | -33 | -5.6 |
| 6/2/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | 3.60 | -36 | -6.0 |
| 6/2/2011 | LDWF | 29.795056 | -91.177472 | 13 | Little Bayou Sorrel | 2.80 | -37 | -6.3 |
| 6/2/2011 | LDWF | 29.803722 | -91.230778 | 14 | Little Bayou Sorrel | 4.60 | -37 | -6.2 |
| 6/2/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | 4.10 | -37 | -6.2 |
| 6/2/2011 | LDWF | 29.761361 | -91.217528 | 17 | Flat Lake | 3.00 | -37 | -6.2 |
| 6/2/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | 4.00 | -36 | -6.2 |
| 6/2/2011 | LDWF | 29.757306 | -91.193167 | 19 | Flat Lake | 1.60 | -38 | -6.1 |
| 6/2/2011 | LDWF | 29.765694 | -91.177472 | 20 | Intracoastal Waterway | 1.70 | -37 | -6.2 |
| 6/2/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 2.80 | -36 | -6.1 |
| 6/2/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 4.50 | -37 | -6.1 |
| 6/2/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 2.90 | -37 | -5.9 |
| 6/2/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | 2.10 | -34 | -5.6 |
| 6/2/2011 | LDWF | 29.759611 | -91.207500 | Chem-LSU-1 | Mid Flat Lake | 3.50 | | |
| 6/2/2011 | USGS | 30.061047 | -91.593364 | 26 | GA Cut at Grand Bayou | | -33 | -5.9 |
| 6/2/2011 | USGS | 29.993222 | -91.522986 | 28 | Buffalo Cove | | -36 | -6.2 |
| 6/2/2011 | USGS | 29.980925 | -91.534581 | 29 | GA Cut At Buffalo Cove | | -34 | -5.6 |
| 6/2/2011 | USGS | 29.890646 | -91.458941 | 30 | Grand Bayou | | -35 | -6.0 |
| 6/2/2011 | USGS | 29.827833 | -91.013750 | 37 | Blue Point Chute | | -35 | -5.9 |
| 6/2/2011 | USGS | 29.901583 | -91.485170 | 101 | Grand Lake | | -35 | -6.0 |
| 6/2/2011 | USGS | 29.822917 | -91.379750 | 102 | Grand Lake Channel | | -36 | -5.9 |
| 6/2/2011 | USGS | 30.078167 | -91.313278 | 3 | Byupigeon at GIWW | 7.00 | -38 | -6.3 |
| 6/2/2011 | USGS | 30.066250 | -91.349444 | 4 | Bayou Pigeon near Big Pigeon | 6.80 | -36 | -6.2 |
| 6/2/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | 5.50 | -37 | -6.2 |
| 6/2/2011 | USGS | 30.027722 | -91.468667 | NE | North end of East Grand Lake | 5.50 | -33 | -5.7 |
| 6/9/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | -36 | -6.2 |
| 6/9/2011 | USFWS | 30.381175 | -91.579991 | BB2 | Black Bayou 2 | | -37 | -5.9 |
| 6/9/2011 | USFWS | 30.356100 | -91.547414 | KDE | King’s Ditch East | | -37 | -6.1 |
| 6/9/2011 | USFWS | 30.355009 | -91.548486 | KDW | King’s Ditch West | | -37 | -6.0 |
| 6/9/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | -37 | -5.8 |
| 6/9/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | -37 | -6.4 |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | Depth (m) | dD_H (per mil) | d18_16 (per mil) |
|---|---|---|---|---|---|---|---|---|
| 6/9/2011 | USFWS | 30.236028 | -91.445910 | UF | Upper Flats | | -38 | -6.6 |
| 6/9/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | -37 | -6.2 |
| 6/9/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | -37 | -6.5 |
| 6/9/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | 4.49 | -35 | -5.8 |
| 6/9/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 6.06 | -34 | -5.9 |
| 6/9/2011 | LDWF | 30.283111 | -91.686306 | 35 | River | 4.26 | -35 | -6.5 |
| 6/9/2011 | LDWF | 30.008833 | -91.270139 | 6 | Bayou Postillion | 4.90 | -37 | -5.8 |
| 6/9/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | 8.20 | -37 | -6.1 |
| 6/9/2011 | LDWF | 29.958889 | -91.265083 | 8 | Intracoastal Waterway | 7.60 | -38 | -6.1 |
| 6/9/2011 | LDWF | 29.901056 | -91.294750 | 9 | Stream | 8.20 | -36 | -5.6 |
| 6/9/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | 5.40 | -34 | -5.7 |
| 6/9/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | 5.70 | -35 | -6.1 |
| 6/9/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | 6.70 | -37 | -6.4 |
| 6/9/2011 | LDWF | 29.795056 | -91.177472 | 13 | Little Bayou Sorrel | 4.70 | -37 | -6.5 |
| 6/9/2011 | LDWF | 29.803722 | -91.230778 | 14 | Little Bayou Sorrel | 7.20 | -36 | -6.0 |
| 6/9/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | 6.70 | -34 | -5.8 |
| 6/9/2011 | LDWF | 29.761361 | -91.217528 | 17 | Flat Lake | 2.20 | -33 | -5.8 |
| 6/9/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | 5.80 | -37 | -6.7 |
| 6/9/2011 | LDWF | 29.757306 | -91.193167 | 19 | Flat Lake | 1.80 | -37 | -6.3 |
| 6/9/2011 | LDWF | 29.765694 | -91.177472 | 20 | Intracoastal Waterway | 2.50 | -38 | -6.2 |
| 6/9/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 7.20 | -34 | -5.9 |
| 6/9/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 6.70 | -36 | -6.2 |
| 6/9/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 7.10 | -35 | -5.8 |
| 6/9/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | 4.00 | -34 | -5.9 |
| 6/9/2011 | LDWF | 29.759611 | -91.207500 | Chem-LSU-1 | Mid Flat Lake | 2.30 | | |
| 6/9/2011 | USGS | 30.061047 | -91.593364 | 26 | GA Cut at Grand Bayou | | -33 | -5.6 |
| 6/9/2011 | USGS | 30.083667 | -91.618750 | 27 | Bayou Benoit Boat Launch | | -34 | -5.7 |
| 6/9/2011 | USGS | 29.993222 | -91.522986 | 28 | Buffalo Cove | | -34 | -5.7 |
| 6/9/2011 | USGS | 29.980925 | -91.534581 | 29 | GA Cut At Buffalo Cove | | -34 | -6.0 |
| 6/9/2011 | USGS | 29.890646 | -91.458941 | 30 | Grand Bayou | | -34 | -5.8 |
| 6/9/2011 | USGS | 29.901583 | -91.485170 | 101 | Grand Lake | | -34 | -5.7 |
| 6/9/2011 | USGS | 29.822917 | -91.379750 | 102 | Grand Lake Channel | | -35 | -5.9 |
| 6/9/2011 | USGS | 30.118500 | -91.472639 | 1 | Sorrel at Atchafalaya | | -34 | -5.7 |
| 6/9/2011 | USGS | 30.105611 | -91.416889 | 1.5 | Gas pipeline off Indigo | | -35 | -5.7 |
| 6/9/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | | -38 | -6.1 |
| 6/9/2011 | USGS | 30.078167 | -91.313278 | 3 | Byupigeon at GIWW | | -38 | -6.0 |
| 6/9/2011 | USGS | 30.066250 | -91.349444 | 4 | Bayou Pigeon near Big Pigeon | | -38 | -6.3 |
| 6/9/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | | -38 | -6.3 |
| 6/9/2011 | USGS | 30.240583 | -91.534694 | 33 | Grand River near Atch | | -36 | -6.1 |
| 6/9/2011 | USGS | 30.231417 | -91.427583 | 34 | GIWW S of Grand R. | | -38 | -6.2 |
| 6/9/2011 | USGS | 30.236833 | -91.598833 | GR | Grand River | | -35 | -6.0 |
| 6/9/2011 | USGS | 30.027722 | -91.468667 | NE | North end of East Grand Lake | | -35 | -5.8 |
| 6/16/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | -35 | -6.0 |
| 6/16/2011 | USFWS | 30.356100 | -91.547414 | KDE | King’s Ditch East | | -38 | -6.2 |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | Depth (m) | dD_H (per mil) | d18_16 (per mil) |
|---|---|---|---|---|---|---|---|---|
| 6/16/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | -38 | -6.1 |
| 6/16/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | -37 | -6.1 |
| 6/16/2011 | USGS | 30.061047 | -91.593364 | 26 | GA Cut at Grand Bayou | | -35 | -6.0 |
| 6/16/2011 | USGS | 30.083667 | -91.618750 | 27 | Bayou Benoit Boat Launch | | -35 | -6.0 |
| 6/16/2011 | USGS | 29.993222 | -91.522986 | 28 | Buffalo Cove | | -35 | -5.9 |
| 6/16/2011 | USGS | 29.980925 | -91.534581 | 29 | GA Cut At Buffalo Cove | | -34 | -5.8 |
| 6/16/2011 | USGS | 29.890646 | -91.458941 | 30 | Grand Bayou | | -33 | -6.0 |
| 6/16/2011 | USGS | 29.827833 | -91.013750 | 37 | Blue Point Chute | | -37 | -6.1 |
| 6/16/2011 | USGS | 29.822917 | -91.379750 | 102 | Grand Lake Channel | | -34 | -5.5 |
| 6/16/2011 | USGS | 29.902170 | -91.480560 | 103 | Main Channel at Blue Point Chute | | -37 | -6.0 |
| 6/16/2011 | USGS | 30.118500 | -91.472639 | 1 | Sorrel at Atchafalaya | | -37 | -6.3 |
| 6/16/2011 | USGS | 30.105611 | -91.416889 | 1.5 | Gas pipeline off Indigo | | -34 | -5.7 |
| 6/16/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | | -36 | -6.2 |
| 6/16/2011 | USGS | 30.078167 | -91.313278 | 3 | Byupigeon at GIWW | | -37 | -6.2 |
| 6/16/2011 | USGS | 30.066250 | -91.349444 | 4 | Bayou Pigeon near Big Pigeon | | -37 | -6.4 |
| 6/16/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | | -35 | -5.7 |
| 6/16/2011 | USGS | 30.240583 | -91.534694 | 33 | Grand River near Atch | | -36 | -6.4 |
| 6/16/2011 | USGS | 30.231417 | -91.427583 | 34 | GIWW S of Grand R. | | -38 | -6.5 |
| 6/16/2011 | USGS | 30.236833 | -91.598833 | GR | Grand River | | -37 | -6.3 |
| 6/16/2011 | USGS | 30.027722 | -91.468667 | NE | North end of East Grand Lake | | -34 | -6.0 |
| 6/23/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | -35 | -5.5 |
| 6/23/2011 | USFWS | 30.356100 | -91.547414 | KDE | King's Ditch East | | -37 | -6.1 |
| 6/23/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | -37 | -6.1 |
| 6/23/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | -37 | -6.3 |
| 6/23/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | -36 | -6.0 |
| 6/23/2011 | USFWS | 30.236028 | -91.445910 | UF | Upper Flats | | -37 | -6.1 |
| 6/23/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | -36 | -6.1 |
| 6/23/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | -36 | -6.3 |
| 6/23/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | 2.67 | | |
| 6/23/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 1.55 | | |
| 6/23/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 5.70 | | |
| 6/23/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 4.70 | | |
| 6/23/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 4.70 | | |
| 6/23/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | 1.00 | | |
| 6/23/2011 | LDWF | 29.759611 | -91.207500 | Chem-LSU-1 | Mid Flat Lake | 2.30 | | |
| 6/23/2011 | USGS | 30.118500 | -91.472639 | 1 | Sorrel at Atchafalaya | | -38 | -6.3 |
| 6/23/2011 | USGS | 30.105611 | -91.416889 | 1.5 | Gas pipeline off Indigo | | -38 | -6.3 |
| 6/23/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | | -36 | -5.7 |
| 6/23/2011 | USGS | 30.078167 | -91.313278 | 3 | Byupigeon at GIWW | | -36 | -6.1 |
| 6/23/2011 | USGS | 30.066250 | -91.349444 | 4 | Bayou Pigeon near Big Pigeon | | -35 | -5.7 |
| 6/23/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | | -35 | -5.6 |
| 6/23/2011 | USGS | 30.240583 | -91.534694 | 33 | Grand River near Atch | | -36 | -6.0 |
| 6/23/2011 | USGS | 30.231417 | -91.427583 | 34 | GIWW S of Grand R. | | -37 | -6.4 |
| 6/23/2011 | USGS | 30.02743333 | -91.28838333 | DK-2 | Byu Stringer | | -36 | -5.8 |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | Depth (m) | dD_H (per mil) | d18_16 (per mil) |
|---|---|---|---|---|---|---|---|---|
| 6/23/2011 | USGS | 30.236833 | -91.598833 | GR | Grand River | | -38 | -6.1 |
| 6/23/2011 | USGS | 30.027722 | -91.468667 | NE | North end of East Grand Lake | | -36 | -5.8 |
| 6/30/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | -35 | -5.9 |
| 6/30/2011 | USFWS | 30.356100 | -91.547414 | KDE | King's Ditch East | | -36 | -5.9 |
| 6/30/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | -35 | -5.8 |
| 6/30/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | -36 | -6.0 |
| 6/30/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | -36 | -6.1 |
| 6/30/2011 | USFWS | 30.236028 | -91.445910 | UF | Upper Flats | | -35 | -5.9 |
| 6/30/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | -36 | -5.9 |
| 6/30/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | -36 | -5.9 |
| 6/30/2011 | USGS | 30.061047 | -91.593364 | 26 | GA Cut at Grand Bayou | | -37 | -6.0 |
| 6/30/2011 | USGS | 30.083667 | -91.618750 | 27 | Bayou Benoit Boat Launch | | -28 | -3.3 |
| 6/30/2011 | USGS | 29.993222 | -91.522986 | 28 | Buffalo Cove | | -37 | -6.0 |
| 6/30/2011 | USGS | 29.980925 | -91.534581 | 29 | GA Cut At Buffalo Cove | | -37 | -5.9 |
| 6/30/2011 | USGS | 29.890646 | -91.458941 | 30 | Grand Bayou | | -35 | -5.7 |
| 6/30/2011 | USGS | 29.827833 | -91.013750 | 37 | Blue Point Chute | | -40 | -6.3 |
| 6/30/2011 | USGS | 29.822917 | -91.379750 | 102 | Grand Lake Channel | | -37 | -6.0 |
| 6/30/2011 | USGS | 29.902170 | -91.480560 | 103 | Main Channel at Blue Point Chute | | -39 | -6.5 |
| 7/7/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | -34 | -5.4 |
| 7/7/2011 | USFWS | 30.356100 | -91.547414 | KDE | King's Ditch East | | -34 | -5.4 |
| 7/7/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | -34 | -5.5 |
| 7/7/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | -35 | -5.6 |
| 7/7/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | -34 | -5.5 |
| 7/7/2011 | USFWS | 30.236028 | -91.445910 | UF | Upper Flats | | -35 | -5.5 |
| 7/7/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | -33 | -5.2 |
| 7/7/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | -33 | -5.3 |
| 7/7/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | 3.26 | | |
| 7/7/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 5.10 | | |
| 7/7/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 6.40 | | |
| 7/7/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 6.00 | | |
| 7/7/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 6.90 | | |
| 7/7/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | 2.50 | | |
| 7/7/2011 | LDWF | 29.759611 | -91.207500 | Chem-LSU-1 | Mid Flat Lake | | | |
| 7/7/2011 | USGS | 30.061047 | -91.593364 | 26 | GA Cut at Grand Bayou | | -37 | -5.7 |
| 7/7/2011 | USGS | 30.083667 | -91.618750 | 27 | Bayou Benoit Boat Launch | | -31 | -5.0 |
| 7/7/2011 | USGS | 29.993222 | -91.522986 | 28 | Buffalo Cove | | -39 | -6.5 |
| 7/7/2011 | USGS | 29.980925 | -91.534581 | 29 | GA Cut At Buffalo Cove | | -39 | -6.8 |
| 7/7/2011 | USGS | 29.890646 | -91.458941 | 30 | Grand Bayou | | -37 | -6.5 |
| 7/7/2011 | USGS | 29.827833 | -91.013750 | 37 | Blue Point Chute | | -41 | -6.3 |
| 7/7/2011 | USGS | 29.822917 | -91.379750 | 102 | Grand Lake Channel | | -38 | -6.1 |
| 7/7/2011 | USGS | 29.902170 | -91.480560 | 103 | Main Channel at Blue Point Chute | | -41 | -6.7 |
| 7/7/2011 | USGS | 30.118500 | -91.472639 | 1 | Sorrel at Atchafalaya | | -41 | -6.5 |
| 7/7/2011 | USGS | 30.105611 | -91.416889 | 1.5 | Gas pipeline off Indigo | | -41 | -6.6 |
| 7/7/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | | -41 | -6.5 |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | Depth (m) | dD_H (per mil) | d18_16 (per mil) |
|---|---|---|---|---|---|---|---|---|
| 7/7/2011 | USGS | 30.078167 | -91.313278 | 3 | Byupigeon at GIWW | | -39 | -6.2 |
| 7/7/2011 | USGS | 30.066250 | -91.349444 | 4 | Bayou Pigeon near Big Pigeon | | -38 | -6.3 |
| 7/7/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | | -38 | -5.8 |
| 7/7/2011 | USGS | 30.240583 | -91.534694 | 33 | Grand River near Atch | | -41 | -6.6 |
| 7/7/2011 | USGS | 30.231417 | -91.427583 | 34 | GIWW S of Grand R. | | -36 | -5.5 |
| 7/7/2011 | USGS | 30.236833 | -91.598833 | GR | Grand River | | -41 | -6.7 |
| 7/7/2011 | USGS | 30.027722 | -91.468667 | NE | North end of East Grand Lake | | -39 | -6.1 |
| 7/14/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | -32 | -5.6 |
| 7/14/2011 | USFWS | 30.356100 | -91.547414 | KDE | King’s Ditch East | | -31 | -5.0 |
| 7/14/2011 | USFWS | 30.355009 | -91.548486 | KDW | King’s Ditch West | | -32 | -5.3 |
| 7/14/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | -32 | -4.4 |
| 7/14/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | -31 | -4.2 |
| 7/14/2011 | USFWS | 30.236028 | -91.445910 | UF | Upper Flats | | -34 | -5.4 |
| 7/14/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | -32 | -5.1 |
| 7/14/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | -32 | -5.3 |
| 7/21/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | -27 | -4.7 |
| 7/21/2011 | USFWS | 30.356100 | -91.547414 | KDE | King’s Ditch East | | -29 | -5.1 |
| 7/21/2011 | USFWS | 30.355009 | -91.548486 | KDW | King’s Ditch West | | -29 | -4.8 |
| 7/21/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | -28 | -4.4 |
| 7/21/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | -24 | -3.4 |
| 7/21/2011 | USFWS | 30.236028 | -91.445910 | UF | Upper Flats | | -33 | -5.3 |
| 7/21/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | -28 | -4.7 |
| 7/21/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | -31 | -5.2 |
| 7/21/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | 6.34 | | |
| 7/21/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 5.67 | | |
| 7/21/2011 | LDWF | 30.008833 | -91.270139 | 6 | Bayou Postillion | 4.20 | -40 | -7.0 |
| 7/21/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | 5.70 | -39 | -6.1 |
| 7/21/2011 | LDWF | 29.958889 | -91.265083 | 8 | Intracoastal Waterway | 2.20 | -41 | -6.4 |
| 7/21/2011 | LDWF | 29.901056 | -91.294750 | 9 | Stream | 2.70 | -40 | -6.3 |
| 7/21/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | 3.50 | -38 | -6.3 |
| 7/21/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | 3.20 | -37 | -6.4 |
| 7/21/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | 3.80 | -36 | -5.4 |
| 7/21/2011 | LDWF | 29.795056 | -91.177472 | 13 | Little Bayou Sorrel | 3.90 | -36 | -6.2 |
| 7/21/2011 | LDWF | 29.803722 | -91.230778 | 14 | Little Bayou Sorrel | 4.60 | -33 | -5.2 |
| 7/21/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | 6.00 | -41 | -6.3 |
| 7/21/2011 | LDWF | 29.761361 | -91.217528 | 17 | Flat Lake | 1.00 | -37 | -5.9 |
| 7/21/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | 4.20 | -33 | -5.4 |
| 7/21/2011 | LDWF | 29.757306 | -91.193167 | 19 | Flat Lake | 0.40 | -39 | -6.1 |
| 7/21/2011 | LDWF | 29.765694 | -91.177472 | 20 | Intracoastal Waterway | 5.80 | -38 | -6.1 |
| 7/21/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 6.00 | -46 | -7.1 |
| 7/21/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 5.60 | -38 | -6.6 |
| 7/21/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 6.40 | -41 | -5.8 |
| 7/21/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | 2.80 | -44 | -7.4 |
| 7/21/2011 | LDWF | 29.759611 | -91.207500 | Chem-LSU-1 | Mid Flat Lake | 1.40 | | |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | Depth (m) | dD_H (per mil) | d18_16 (per mil) |
|---|---|---|---|---|---|---|---|---|
| 7/21/2011 | USGS | 30.061047 | -91.593364 | 26 | GA Cut at Grand Bayou | | -43 | -7.2 |
| 7/21/2011 | USGS | 30.083667 | -91.618750 | 27 | Bayou Benoit Boat Launch | | -25 | -4.5 |
| 7/21/2011 | USGS | 29.993222 | -91.522986 | 28 | Buffalo Cove | | -40 | -6.5 |
| 7/21/2011 | USGS | 29.980925 | -91.534581 | 29 | GA Cut At Buffalo Cove | | -40 | -6.5 |
| 7/21/2011 | USGS | 29.890646 | -91.458941 | 30 | Grand Bayou | | -38 | -6.0 |
| 7/21/2011 | USGS | 29.827833 | -91.013750 | 37 | Blue Point Chute | | -45 | -7.0 |
| 7/21/2011 | USGS | 29.822917 | -91.379750 | 102 | Grand Lake Channel | | -34 | -3.9 |
| 7/21/2011 | USGS | 29.902170 | -91.480560 | 103 | Main Channel at Blue Point Chute | | -46 | -7.4 |
| 7/21/2011 | USGS | 30.118500 | -91.472639 | 1 | Sorrel at Atchafalaya | 3.47 | -47 | -7.0 |
| 7/21/2011 | USGS | 30.105611 | -91.416889 | 1.5 | Gas pipeline off Indigo | 1.65 | -45 | -6.7 |
| 7/21/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | 2.53 | -45 | -6.9 |
| 7/21/2011 | USGS | 30.078167 | -91.313278 | 3 | Byupigeon at GIWW | 1.21 | -41 | -6.7 |
| 7/21/2011 | USGS | 30.066250 | -91.349444 | 4 | Bayou Pigeon near Big Pigeon | 1.19 | -41 | -6.3 |
| 7/21/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | | -40 | -6.3 |
| 7/21/2011 | USGS | 30.240583 | -91.534694 | 33 | Grand River near Atch | 2.11 | -47 | -7.0 |
| 7/21/2011 | USGS | 30.231417 | -91.427583 | 34 | GIWW S of Grand R. | 2.58 | -45 | -6.9 |
| 7/21/2011 | USGS | 30.236833 | -91.598833 | GR | Grand River | 2.18 | -47 | -7.1 |
| 7/21/2011 | USGS | 30.027722 | -91.468667 | NE | North end of East Grand Lake | 0.70 | -43 | -6.5 |
| 7/28/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | -25 | -4.2 |
| 7/28/2011 | USFWS | 30.356100 | -91.547414 | KDE | King’s Ditch East | | -25 | -4.7 |
| 7/28/2011 | USFWS | 30.355009 | -91.548486 | KDW | King’s Ditch West | | -25 | -4.5 |
| 7/28/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | -25 | -4.1 |
| 7/28/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | -23 | -4.0 |
| 7/28/2011 | USFWS | 30.236028 | -91.445910 | UF | Upper Flats | | -30 | -5.6 |
| 7/28/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | -26 | -4.5 |
| 7/28/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | -26 | -4.5 |
| 7/28/2011 | LDWF | 30.008833 | -91.270139 | 6 | Bayou Postillion | 3.50 | -37 | -5.9 |
| 7/28/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | 5.70 | -38 | -6.0 |
| 7/28/2011 | LDWF | 29.958889 | -91.265083 | 8 | Intracoastal Waterway | 5.20 | -37 | -6.2 |
| 7/28/2011 | LDWF | 29.901056 | -91.294750 | 9 | Stream | 3.10 | -36 | -5.9 |
| 7/28/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | 3.60 | -38 | -6.3 |
| 7/28/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | 3.40 | -36 | -5.2 |
| 7/28/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | 4.50 | -38 | -5.9 |
| 7/28/2011 | LDWF | 29.803722 | -91.230778 | 14 | Little Bayou Sorrel | 4.10 | -35 | -5.4 |
| 7/28/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | 4.30 | -39 | -5.7 |
| 7/28/2011 | LDWF | 29.761361 | -91.217528 | 17 | Flat Lake | 1.00 | -39 | -5.7 |
| 7/28/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | 3.80 | -32 | -4.4 |
| 7/28/2011 | LDWF | 29.757306 | -91.193167 | 19 | Flat Lake | 0.20 | -38 | -5.8 |
| 7/28/2011 | LDWF | 29.765694 | -91.177472 | 20 | Intracoastal Waterway | 5.60 | -38 | -5.8 |
| 7/28/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 5.10 | -44 | -6.0 |
| 7/28/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 2.60 | -38 | -6.1 |
| 7/28/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 6.00 | -46 | -6.8 |
| 7/28/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | 2.00 | -43 | -6.4 |
| 8/4/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | -20 | -3.5 |
| 8/4/2011 | USFWS | 30.356100 | -91.547414 | KDE | King’s Ditch East | | -20 | -4.0 |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | Depth (m) | dD_H (per mil) | d18_16 (per mil) |
|---|---|---|---|---|---|---|---|---|
| 8/4/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | -19 | -3.6 |
| 8/4/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | -20 | -3.4 |
| 8/4/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | -18 | -3.5 |
| 8/4/2011 | USFWS | 30.236028 | -91.445910 | UF | Upper Flats | | -27 | -4.5 |
| 8/4/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | -21 | -3.6 |
| 8/4/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | -24 | -4.2 |
| 8/4/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | 4.28 | | |
| 8/4/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 5.72 | | |
| 8/4/2011 | LDWF | 30.008833 | -91.270139 | 6 | Bayou Postillion | 3.20 | -40 | -6.0 |
| 8/4/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | 5.10 | -35 | -5.8 |
| 8/4/2011 | LDWF | 29.958889 | -91.265083 | 8 | Intracoastal Waterway | 5.20 | -38 | -5.7 |
| 8/4/2011 | LDWF | 29.901056 | -91.294750 | 9 | Stream | 3.00 | -35 | -5.5 |
| 8/4/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | 3.60 | -36 | -5.8 |
| 8/4/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | 2.80 | -35 | -5.5 |
| 8/4/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | 3.90 | -35 | -5.7 |
| 8/4/2011 | LDWF | 29.795056 | -91.177472 | 13 | Little Bayou Sorrel | 3.50 | -34 | -5.4 |
| 8/4/2011 | LDWF | 29.803722 | -91.230778 | 14 | Little Bayou Sorrel | 2.80 | -33 | -5.2 |
| 8/4/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | 3.70 | -39 | -6.1 |
| 8/4/2011 | LDWF | 29.761361 | -91.217528 | 17 | Flat Lake | 0.70 | -36 | -5.7 |
| 8/4/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | 3.80 | -32 | -5.5 |
| 8/4/2011 | LDWF | 29.757306 | -91.193167 | 19 | Flat Lake | 0.20 | -36 | -5.8 |
| 8/4/2011 | LDWF | 29.765694 | -91.177472 | 20 | Intracoastal Waterway | 5.80 | -37 | -5.7 |
| 8/4/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 5.60 | -48 | -7.1 |
| 8/4/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 3.90 | -38 | -6.1 |
| 8/4/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 5.50 | -48 | -7.4 |
| 8/4/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | 1.80 | -45 | -6.7 |
| 8/4/2011 | LDWF | 29.759611 | -91.207500 | Chem-LSU-1 | Mid Flat Lake | | | |
| 8/4/2011 | USGS | 30.061047 | -91.593364 | 26 | GA Cut at Grand Bayou | | -42 | -6.1 |
| 8/4/2011 | USGS | 30.083667 | -91.618750 | 27 | Bayou Benoit Boat Launch | | -20 | -3.3 |
| 8/4/2011 | USGS | 29.993222 | -91.522986 | 28 | Buffalo Cove | | -34 | -5.2 |
| 8/4/2011 | USGS | 29.980925 | -91.534581 | 29 | GA Cut At Buffalo Cove | | -41 | -5.9 |
| 8/4/2011 | USGS | 29.890646 | -91.458941 | 30 | Grand Bayou | | -31 | -5.2 |
| 8/4/2011 | USGS | 29.827833 | -91.013750 | 37 | Blue Point Chute | | -49 | -7.3 |
| 8/4/2011 | USGS | 29.822917 | -91.379750 | 102 | Grand Lake Channel | | -42 | -6.5 |
| 8/4/2011 | USGS | 29.902170 | -91.480560 | 103 | Main Channel at Blue Point Chute | | -50 | -7.5 |
| 8/4/2011 | USGS | 30.118500 | -91.472639 | 1 | Sorrel at Atchafalaya | | -50 | -7.4 |
| 8/4/2011 | USGS | 30.105611 | -91.416889 | 1.5 | Gas pipeline off Indigo | | -47 | -6.9 |
| 8/4/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | | -48 | -7.0 |
| 8/4/2011 | USGS | 30.078167 | -91.313278 | 3 | Byupigeon at GIWW | | -39 | -6.1 |
| 8/4/2011 | USGS | 30.066250 | -91.349444 | 4 | Bayou Pigeon near Big Pigeon | | -40 | -6.2 |
| 8/4/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | | -36 | -5.5 |
| 8/4/2011 | USGS | 30.240583 | -91.534694 | 33 | Grand River near Atch | | -38 | -6.0 |
| 8/4/2011 | USGS | 30.231417 | -91.427583 | 34 | GIWW S of Grand R. | | -50 | -7.6 |
| 8/4/2011 | USGS | 30.236833 | -91.598833 | GR | Grand River | | -51 | -7.5 |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | Depth (m) | dD_H (per mil) | d18_16 (per mil) |
|---|---|---|---|---|---|---|---|---|
| 8/4/2011 | USGS | 30.027722 | -91.468667 | NE | North end of East Grand Lake | | -37 | -5.7 |
| 9/8/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | -68 | -10.3 |
| 9/8/2011 | USFWS | 30.356100 | -91.547414 | KDE | King's Ditch East | | -61 | -9.2 |
| 9/8/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | -65 | -10.0 |
| 9/8/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | -68 | -10.3 |
| 9/8/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | -66 | -9.6 |
| 9/8/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | 6.15 | -51 | -7.0 |
| 9/8/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 5.62 | -54 | -7.8 |
| 9/8/2011 | LDWF | 30.283111 | -91.686306 | 35 | River | 5.26 | -55 | -7.8 |
| 9/8/2011 | LDWF | 29.901056 | -91.294750 | 9 | Stream | 2.50 | -55 | -8.0 |
| 9/8/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 6.00 | | |
| 9/8/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 1.80 | | |
| 9/8/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 5.30 | | |
| 9/8/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | 1.40 | | |
| 9/8/2011 | LDWF | 29.759611 | -91.207500 | Chem-LSU-1 | Mid Flat Lake | 0.70 | | |
| 9/8/2011 | USGS | 30.061047 | -91.593364 | 26 | GA Cut at Grand Bayou | | -54 | -7.8 |
| 9/8/2011 | USGS | 30.083667 | -91.618750 | 27 | Bayou Benoit Boat Launch | | -45 | -6.6 |
| 9/8/2011 | USGS | 29.993222 | -91.522986 | 28 | Buffalo Cove | | -49 | -7.0 |
| 9/8/2011 | USGS | 29.980925 | -91.534581 | 29 | GA Cut At Buffalo Cove | | -53 | -7.4 |
| 9/8/2011 | USGS | 30.118500 | -91.472639 | 1 | Sorrel at Atchafalaya | | -55 | -7.3 |
| 9/8/2011 | USGS | 30.105611 | -91.416889 | 1.5 | Gas pipeline off Indigo | | -54 | -7.4 |
| 9/8/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | | -53 | -7.6 |
| 9/8/2011 | USGS | 30.078167 | -91.313278 | 3 | Byupigeon at GIWW | | -54 | -7.8 |
| 9/8/2011 | USGS | 30.066250 | -91.349444 | 4 | Bayou Pigeon near Big Pigeon | | -54 | -7.9 |
| 9/8/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | | -59 | -8.6 |
| 9/8/2011 | USGS | 30.240583 | -91.534694 | 33 | Grand River near Atch | | -55 | -8.0 |
| 9/8/2011 | USGS | 30.231417 | -91.427583 | 34 | GIWW S of Grand R. | | -54 | -7.8 |
| 9/8/2011 | USGS | 30.236833 | -91.598833 | GR | Grand River | | -56 | -7.9 |
| 9/8/2011 | USGS | 30.027722 | -91.468667 | NE | North end of East Grand Lake | | -50 | -7.3 |
| 10/12/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | | |
| 10/12/2011 | USFWS | 30.356100 | -91.547414 | KDE | King's Ditch East | | | |
| 10/12/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | | |
| 10/12/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | | |
| 10/12/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | | |
| 10/12/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | 6.70 | -52 | -8.7 |
| 10/12/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 4.10 | -49 | -7.5 |
| 10/12/2011 | LDWF | 30.283111 | -91.686306 | 35 | River | 3.20 | -48 | -7.4 |
| 10/12/2011 | LDWF | 30.008833 | -91.270139 | 6 | Bayou Postillion | 2.50 | -52 | -7.3 |
| 10/12/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | 3.70 | -50 | -7.2 |
| 10/12/2011 | LDWF | 29.958889 | -91.265083 | 8 | Intracoastal Waterway | 4.60 | -46 | -5.5 |
| 10/12/2011 | LDWF | 29.901056 | -91.294750 | 9 | Stream | 2.40 | -46 | -6.8 |
| 10/12/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | 2.70 | -45 | -6.4 |
| 10/12/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | 2.40 | -45 | -7.0 |
| 10/12/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | 3.50 | -52 | -8.1 |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | Depth (m) | dD_H (per mil) | d18_16 (per mil) |
|---|---|---|---|---|---|---|---|---|
| 10/12/2011 | LDWF | 29.795056 | -91.177472 | 13 | Little Bayou Sorrel | 3.70 | -48 | -7.0 |
| 10/12/2011 | LDWF | 29.803722 | -91.230778 | 14 | Little Bayou Sorrel | 3.00 | -48 | -6.7 |
| 10/12/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | 2.40 | -50 | -8.0 |
| 10/12/2011 | LDWF | 29.761361 | -91.217528 | 17 | Flat Lake | 0.20 | -46 | -6.8 |
| 10/12/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | 3.80 | -48 | -7.6 |
| 10/12/2011 | LDWF | 29.757306 | -91.193167 | 19 | Flat Lake | 0.20 | -49 | -5.6 |
| 10/12/2011 | LDWF | 29.765694 | -91.177472 | 20 | Intracoastal Waterway | 4.80 | -51 | -7.6 |
| 10/12/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 5.70 | | |
| 10/12/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 2.30 | -51 | -7.6 |
| 10/12/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 6.00 | -50 | -7.4 |
| 10/12/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | 1.50 | -47 | -6.9 |
| 10/12/2011 | LDWF | 29.759611 | -91.207500 | Chem-LSU-1 | Mid Flat Lake | 0.70 | | |
| 10/12/2011 | USGS | 30.061047 | -91.593364 | 26 | GA Cut at Grand Bayou | | -51 | -7.5 |
| 10/12/2011 | USGS | 30.083667 | -91.618750 | 27 | Bayou Benoit Boat Launch | | -50 | -7.1 |
| 10/12/2011 | USGS | 29.993222 | -91.522986 | 28 | Buffalo Cove | | -37 | -5.0 |
| 10/12/2011 | USGS | 29.980925 | -91.534581 | 29 | GA Cut At Buffalo Cove | | -52 | -7.5 |
| 10/12/2011 | USGS | 29.890646 | -91.458941 | 30 | Grand Bayou | | -47 | -6.7 |
| 10/12/2011 | USGS | 29.827833 | -91.013750 | 37 | Blue Point Chute | | -50 | -7.6 |
| 10/12/2011 | USGS | 29.822917 | -91.379750 | 102 | Grand Lake Channel | | -53 | -8.1 |
| 10/12/2011 | USGS | 29.902170 | -91.480560 | 103 | Main Channel at Blue Point Chute | | -51 | -7.7 |
| 10/12/2011 | USGS | 30.105611 | -91.416889 | 1.5 | Gas pipeline off Indigo | | -51 | -7.6 |
| 10/12/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | | -51 | -7.1 |
| 10/12/2011 | USGS | 30.078167 | -91.313278 | 3 | Byupigeon at GIWW | | -52 | -7.4 |
| 10/12/2011 | USGS | 30.066250 | -91.349444 | 4 | Bayou Pigeon near Big Pigeon | | -52 | -7.3 |
| 10/12/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | | -51 | -7.2 |
| 10/12/2011 | USGS | 30.240583 | -91.534694 | 33 | Grand River near Atch | | -51 | -7.4 |
| 10/12/2011 | USGS | 30.231417 | -91.427583 | 34 | GIWW S of Grand R. | | -51 | -7.4 |
| 10/12/2011 | USGS | 30.236833 | -91.598833 | GR | Grand River | | -51 | -7.3 |
| 10/12/2011 | USGS | 30.027722 | -91.468667 | NE | North end of East Grand Lake | | -50 | -7.1 |

Note: DGGE stands for denaturing gradient gel electrophoresis
dD_H stands for delta Deuterium isotope (heavy Hydrogen or $^{2}H$) reported in per mil (part per thousand)
d18_16 stands for the delta of Oxygen 18 ($^{18}O$) to Nitrogen 16 ($^{16}N$).reported in per mil

Table D7. Louisiana State University Department of Chemistry

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | Depth | A254 | FI | BIX |
|---|---|---|---|---|---|---|---|---|---|
| 5/19/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 2.60 | 0.137 | 1.425 | 0.477 |
| 5/19/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 5.10 | 0.165 | 1.412 | 0.468 |
| 5/19/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 1.20 | 0.142 | 1.426 | 0.480 |
| 5/19/2011 | LDWF | 29.78925 | -91.29025 | 36 | Lake | 3.40 | 0.136 | 1.419 | 0.470 |
| 5/19/2011 | LDWF | 29.759611 | -91.2075 | Chem-LSU-1 | Mid Flat Lake | | 0.154 | 1.412 | 0.463 |
| 5/19/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 4.18 | 0.135 | 1.413 | 0.475 |
| 5/19/2011 | LDWF | 30.221528 | -91.59125 | 24 | Lake Rond | 4.18 | 0.136 | 1.436 | 0.470 |
| 5/19/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | 0.264 | 1.370 | 0.448 |
| 5/19/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | 0.218 | 1.395 | 0.445 |
| 5/19/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | 0.344 | 1.467 | 0.515 |
| 5/19/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | 0.188 | 1.413 | 0.457 |
| 5/19/2011 | USFWS | 30.3561 | -91.547414 | KDE | King's Ditch East | | 0.174 | 1.412 | 0.454 |
| 5/19/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | 0.134 | 1.445 | 0.478 |
| 5/19/2011 | USFWS | 30.236028 | -91.44591 | UF | Upper Flats | | 0.137 | 1.414 | 0.470 |
| 5/19/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | 0.242 | 1.373 | 0.446 |
| 5/26/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 4.00 | 0.137 | 1.424 | 0.470 |
| 5/26/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 3.20 | 0.173 | 1.497 | 0.542 |
| 5/26/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | | 0.154 | 1.417 | 0.462 |
| 5/26/2011 | LDWF | 29.78925 | -91.29025 | 36 | Lake | 3.60 | 0.120 | 1.439 | 0.480 |
| 5/26/2011 | LDWF | 29.759611 | -91.2075 | Chem-LSU-1 | Mid Flat Lake | 2.40 | 0.125 | 1.449 | 0.471 |
| 5/26/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 10.86 | 0.135 | 1.422 | 0.477 |
| 5/26/2011 | LDWF | 30.221528 | -91.59125 | 24 | Lake Rond | 0.65 | 0.135 | 1.431 | 0.476 |
| 5/26/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | 0.159 | 1.391 | 0.456 |
| 5/26/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | 0.166 | 1.390 | 0.458 |
| 5/26/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | 0.162 | 1.406 | 0.456 |
| 5/26/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | 0.155 | 1.409 | 0.460 |
| 5/26/2011 | USFWS | 30.3561 | -91.547414 | KDE | King's Ditch East | | 0.157 | 1.421 | 0.463 |
| 5/26/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | 0.157 | 1.499 | 0.546 |
| 5/26/2011 | USFWS | 30.236028 | -91.44591 | UF | Upper Flats | | 0.177 | 1.495 | 0.529 |
| 5/26/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | 0.162 | 1.493 | 0.533 |
| 6/2/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 2.80 | 0.157 | 1.516 | 0.538 |
| 6/2/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 4.50 | 0.163 | 1.508 | 0.541 |
| 6/2/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 2.90 | 0.163 | 1.507 | 0.536 |
| 6/2/2011 | LDWF | 29.78925 | -91.29025 | 36 | Lake | 2.10 | 0.158 | 1.494 | 0.547 |
| 6/2/2011 | LDWF | 29.759611 | -91.2075 | Chem-LSU-1 | Mid Flat Lake | 3.50 | 0.186 | 1.491 | 0.538 |
| 6/2/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 11.80 | 0.165 | 1.488 | 0.536 |
| 6/2/2011 | LDWF | 30.221528 | -91.59125 | 24 | Lake Rond | 8.00 | 0.167 | 1.483 | 0.540 |
| 6/2/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | 0.177 | 1.487 | 0.540 |
| 6/2/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | 0.178 | 1.489 | 0.541 |
| 6/2/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | 0.166 | 1.498 | 0.538 |
| 6/2/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | 0.161 | 1.499 | 0.550 |
| 6/2/2011 | USFWS | 30.3561 | -91.547414 | KDE | King's Ditch East | | 0.159 | 1.485 | 0.543 |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | Depth | A254 | FI | BIX |
|---|---|---|---|---|---|---|---|---|---|
| 6/2/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | 0.180 | 1.495 | 0.531 |
| 6/2/2011 | USFWS | 30.236028 | -91.44591 | UF | Upper Flats | | 0.160 | 1.489 | 0.547 |
| 6/2/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | 0.161 | 1.477 | 0.549 |
| 6/9/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 7.20 | 0.165 | 1.447 | 0.555 |
| 6/9/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 6.70 | 0.167 | 1.449 | 0.560 |
| 6/9/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 7.10 | 0.164 | 1.470 | 0.566 |
| 6/9/2011 | LDWF | 29.78925 | -91.29025 | 36 | Lake | 4.00 | 0.164 | 1.494 | 0.556 |
| 6/9/2011 | LDWF | 29.759611 | -91.2075 | Chem-LSU-1 | Mid Flat Lake | 2.30 | 0.186 | 1.475 | 0.535 |
| 6/9/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 6.06 | 0.166 | 1.461 | 0.567 |
| 6/9/2011 | LDWF | 30.221528 | -91.59125 | 24 | Lake Rond | 4.49 | 0.165 | 1.458 | 0.570 |
| 6/9/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | 0.207 | 1.438 | 0.571 |
| 6/9/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | 0.190 | 1.436 | 0.638 |
| 6/9/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | 0.175 | 1.460 | 0.559 |
| 6/9/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | 0.178 | 1.479 | 0.563 |
| 6/9/2011 | USFWS | 30.3561 | -91.547414 | KDE | King's Ditch East | | 0.178 | 1.476 | 0.559 |
| 6/9/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | 0.214 | 1.461 | 0.598 |
| 6/9/2011 | USFWS | 30.236028 | -91.44591 | UF | Upper Flats | | 0.173 | 1.436 | 0.585 |
| 6/9/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | 0.182 | 1.453 | 0.558 |
| 6/23/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 5.70 | 0.151 | 1.503 | 0.564 |
| 6/23/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 4.70 | 0.193 | 1.452 | 0.544 |
| 6/23/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 4.70 | 0.149 | 1.501 | 0.575 |
| 6/23/2011 | LDWF | 29.78925 | -91.29025 | 36 | Lake | 1.00 | 0.161 | 1.492 | 0.561 |
| 6/23/2011 | LDWF | 29.759611 | -91.2075 | Chem-LSU-1 | Mid Flat Lake | 2.30 | 0.186 | 1.462 | 0.536 |
| 6/23/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 1.55 | 0.153 | 1.501 | 0.571 |
| 6/23/2011 | LDWF | 30.221528 | -91.59125 | 24 | Lake Rond | 2.67 | 0.154 | 1.497 | 0.577 |
| 6/23/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | 0.292 | 1.443 | 0.530 |
| 6/23/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | 0.293 | 1.419 | 0.526 |
| 6/23/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | 0.314 | 1.465 | 0.506 |
| 6/23/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | 0.270 | 1.440 | 0.529 |
| 6/23/2011 | USFWS | 30.3561 | -91.547414 | KDE | King's Ditch East | | 0.299 | 1.481 | 0.518 |
| 6/23/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | 0.248 | 1.432 | 0.528 |
| 6/23/2011 | USFWS | 30.236028 | -91.44591 | UF | Upper Flats | | 0.266 | 1.421 | 0.525 |
| 6/23/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | 0.289 | 1.432 | 0.528 |
| 7/7/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 6.40 | 0.124 | 1.510 | 0.593 |
| 7/7/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 6.00 | 0.179 | 1.472 | 0.567 |
| 7/7/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 6.90 | 0.150 | 1.503 | 0.580 |
| 7/7/2011 | LDWF | 29.78925 | -91.29025 | 36 | Lake | 2.50 | 0.132 | 1.501 | 0.587 |
| 7/7/2011 | LDWF | 29.759611 | -91.2075 | Chem-LSU-1 | Mid Flat Lake | | 0.163 | 1.493 | 0.575 |
| 7/7/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 5.10 | 0.130 | 1.503 | 0.590 |
| 7/7/2011 | LDWF | 30.221528 | -91.59125 | 24 | Lake Rond | 3.26 | 0.121 | 1.520 | 0.589 |
| 7/7/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | 0.309 | 1.478 | 0.528 |
| 7/7/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | 0.322 | 1.469 | 0.525 |
| 7/7/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | 0.358 | 1.453 | 0.501 |
| 7/7/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | 0.290 | 1.431 | 0.550 |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | Depth | A254 | FI | BIX |
|---|---|---|---|---|---|---|---|---|---|
| 7/7/2011 | USFWS | 30.3561 | -91.547414 | KDE | King's Ditch East | | 0.300 | 1.442 | 0.542 |
| 7/7/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | 0.250 | 1.449 | 0.545 |
| 7/7/2011 | USFWS | 30.236028 | -91.44591 | UF | Upper Flats | | 0.283 | 1.420 | 0.528 |
| 7/7/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | 0.314 | 1.467 | 0.527 |
| 7/21/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 6.00 | 0.125 | 1.525 | 0.600 |
| 7/21/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 5.60 | 0.165 | 1.489 | 0.567 |
| 7/21/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 6.40 | 0.125 | 1.517 | 0.601 |
| 7/21/2011 | LDWF | 29.78925 | -91.29025 | 36 | Lake | 2.80 | 0.130 | 1.509 | 0.596 |
| 7/21/2011 | LDWF | 29.759611 | -91.2075 | Chem-LSU-1 | Mid Flat Lake | 1.40 | 0.148 | 1.504 | 0.570 |
| 7/21/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 5.67 | 0.128 | 1.517 | 0.602 |
| 7/21/2011 | LDWF | 30.221528 | -91.59125 | 24 | Lake Rond | 6.34 | 0.137 | 1.515 | 0.590 |
| 7/21/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | 0.293 | 1.455 | 0.551 |
| 7/21/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | 0.318 | 1.475 | 0.530 |
| 7/21/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | 0.342 | 1.450 | 0.515 |
| 7/21/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | 0.325 | 1.471 | 0.531 |
| 7/21/2011 | USFWS | 30.3561 | -91.547414 | KDE | King's Ditch East | | 0.292 | 1.439 | 0.548 |
| 7/21/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | 0.273 | 1.454 | 0.543 |
| 7/21/2011 | USFWS | 30.236028 | -91.44591 | UF | Upper Flats | | 0.297 | 1.441 | 0.531 |
| 7/21/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | 0.289 | 1.438 | 0.551 |
| 8/4/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 5.60 | 0.119 | 1.521 | 0.617 |
| 8/4/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 3.90 | 0.174 | 1.489 | 0.577 |
| 8/4/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 5.50 | 0.122 | 1.523 | 0.614 |
| 8/4/2011 | LDWF | 29.78925 | -91.29025 | 36 | Lake | 1.80 | 0.135 | 1.499 | 0.609 |
| 8/4/2011 | LDWF | 29.759611 | -91.2075 | Chem-LSU-1 | Mid Flat Lake | | 0.155 | 1.502 | 0.575 |
| 8/4/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 5.72 | 0.120 | 1.526 | 0.617 |
| 8/4/2011 | LDWF | 30.221528 | -91.59125 | 24 | Lake Rond | 4.28 | 0.122 | 1.523 | 0.622 |
| 8/4/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | 0.291 | 1.451 | 0.562 |
| 8/4/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | | 0.318 | 1.488 | 0.550 |
| 8/4/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | 0.346 | 1.475 | 0.535 |
| 8/4/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | 0.351 | 1.501 | 0.543 |
| 8/4/2011 | USFWS | 30.3561 | -91.547414 | KDE | King's Ditch East | | 0.312 | 1.492 | 0.541 |
| 8/4/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | | 0.296 | 1.457 | 0.542 |
| 8/4/2011 | USFWS | 30.236028 | -91.44591 | UF | Upper Flats | | 0.317 | 1.488 | 0.527 |
| 8/4/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | 0.289 | 1.460 | 0.559 |
| 9/8/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 6.00 | 0.124 | 1.521 | 0.622 |
| 9/8/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 1.80 | 0.140 | 1.530 | 0.598 |
| 9/8/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 5.30 | 0.123 | 1.530 | 0.621 |
| 9/8/2011 | LDWF | 29.78925 | -91.29025 | 36 | Lake | 1.40 | 0.129 | 1.524 | 0.605 |
| 9/8/2011 | LDWF | 29.759611 | -91.2075 | Chem-LSU-1 | Mid Flat Lake | 0.70 | 0.157 | 1.503 | 0.567 |
| 9/8/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 5.62 | 0.120 | 1.519 | 0.618 |
| 9/8/2011 | LDWF | 30.221528 | -91.59125 | 24 | Lake Rond | 6.15 | 0.129 | 1.518 | 0.622 |
| 9/8/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | 0.276 | 1.462 | 0.536 |
| 9/8/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | 0.340 | 1.436 | 0.477 |
| 9/8/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | 0.315 | 1.504 | 0.510 |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | Depth | A254 | FI | BIX |
|---|---|---|---|---|---|---|---|---|---|
| 9/8/2011 | USFWS | 30.3561 | -91.547414 | KDE | King's Ditch East | | 0.285 | 1.466 | 0.535 |
| 9/8/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | 0.285 | 1.457 | 0.535 |
| 10/12/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | 5.70 | 0.108 | 1.523 | 0.640 |
| 10/12/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | 2.30 | 0.098 | 1.539 | 0.641 |
| 10/12/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | 6.00 | 0.103 | 1.533 | 0.632 |
| 10/12/2011 | LDWF | 29.78925 | -91.29025 | 36 | Lake | 1.50 | 0.112 | 1.507 | 0.629 |
| 10/12/2011 | LDWF | 29.759611 | -91.2075 | Chem-LSU-1 | Mid Flat Lake | 0.70 | 0.108 | 1.524 | 0.625 |
| 10/12/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | 4.10 | 0.094 | 1.557 | 0.845 |
| 10/12/2011 | LDWF | 30.221528 | -91.59125 | 24 | Lake Rond | 6.70 | 0.121 | 1.526 | 0.623 |
| 10/12/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | 0.268 | 1.481 | 0.567 |
| 10/12/2011 | USFWS | 30.390913 | -91.552426 | ND2 | North Drain 2 | | 0.263 | 1.477 | 0.582 |
| 10/12/2011 | USFWS | 30.355009 | -91.548486 | KDW | King's Ditch West | | 0.545 | 1.493 | 0.572 |
| 10/12/2011 | USFWS | 30.3561 | -91.547414 | KDE | King's Ditch East | | 0.347 | 1.514 | 0.568 |
| 10/12/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | | 0.257 | 1.479 | 0.585 |

Notes: A254 is the absorbance at 254 nm, which is an indicator of the aromaticity of dissolved organic carbon. A higher value of A254 indicates a high degree of aromaticity.
FI is the fluorescence index which indicates the source of dissolved organic matter. Approximately 1.4 indicates a terrestrial source whereas about 1.9 indicates an aquatic origin.
BIX is the biological index which is an indicator of the freshness of dissolved organic matter (DOM). A value of 0.6-0.7 indicates a lower production of DOM with higher values indicating a greater production

# Table D8. Virginia Tech University Analyses

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | VT ID | Depth (m) | dD_H permil | d18_16 permil | NPOC (mg/L) | TDN (mg/L) | Cl (mg/L) | SO4 (mg/L) | NO3 (mg/L) | NH3 (uM) | PO3 (uM) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5/19/2011 | USFWS | 30.381923 | -91.581458 | BB1 | Black Bayou 1 | | | | | 5.2 | 1.6 | 10.2 | 27.4 | 1.1 | 3.0 | 0.9 |
| 5/19/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | ND1 | | | | 6.6 | 1.8 | | | | | |
| 5/19/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | WC | | | | | | 16.9 | 25.3 | 0.2 | 6.76 | 2.91 |
| 5/19/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | WC+GR | | | | 7.0 | 0.5 | 15.0 | 30.4 | 0.5 | 6.11 | 2.76 |
| 5/19/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | J24 | 4.18 | -41 | -7.3 | 5.4 | 1.1 | 11.1 | 24.6 | 0.6 | 6.08 | 1.17 |
| 5/19/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | D7 | 9.30 | -41 | -7.1 | 5.5 | 0.7 | 0.0 | -0.8 | 0.1 | 2.82 | 1.33 |
| 5/19/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | E10 | 3.50 | -41 | -7.5 | 5.3 | 1.2 | 15.8 | 33.0 | 0.4 | 3.15 | 0.93 |
| 5/19/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | F11 | 6.80 | -42 | -7.4 | 5.5 | 1.5 | 9.7 | 25.2 | 1.0 | 2.45 | 0.55 |
| 5/19/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | G12 | 3.00 | -41 | -7.2 | 6.1 | 0.8 | 9.2 | 22.8 | 0.7 | 2.90 | 1.26 |
| 5/19/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | I15 | 2.20 | -41 | -7.1 | 5.4 | 1.1 | 11.1 | 24.6 | 0.6 | 6.08 | 1.17 |
| 5/19/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | H18 | 1.30 | -43 | -7.5 | 5.8 | 0.8 | 18.6 | 29.1 | 0.3 | 5.87 | 0.81 |
| 5/19/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | B2 | | -41 | -7.3 | 6.1 | 1.0 | 16.5 | 34.1 | 0.5 | 4.12 | 0.93 |
| 5/19/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | C5 | 4.45 | -42 | -7.2 | | | 7.6 | 19.4 | 0.7 | 2.64 | 0.83 |
| 5/26/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | ND1 | | | | 5.285 | 1.243 | 9.09 | 22.31 | 0.74 | 2.491 | 1.584 |
| 5/26/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | WC | | | | 5.318 | 1.255 | 11.88 | 34.35 | 1.10 | 2.748 | 1.495 |
| 5/26/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | WC+GR | | | | 5.709 | 1.143 | 6.27 | 15.37 | 0.37 | 3.505 | 1.273 |
| 5/26/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | J24 | 0.65 | -37 | -5.4 | 4.730 | 1.397 | 13.27 | 39.11 | 1.29 | 3.542 | 0.792 |
| 5/26/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | | 10.86 | -39 | -6.2 | | | | | | | |
| 5/26/2011 | LDWF | 30.283111 | -91.686306 | 35 | River | | 6.47 | -38 | -6.3 | | | | | | | |
| 5/26/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | D7 | | | | 5.259 | 0.963 | 9.52 | 23.53 | 0.42 | 2.665 | 0.528 |
| 5/26/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | E10 | | | | 4.717 | 1.229 | 10.75 | 27.72 | 0.90 | 2.936 | 0.681 |
| 5/26/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | F11 | | | | 4.914 | 1.388 | 8.91 | 21.38 | 0.79 | 5.718 | 0.736 |
| 5/26/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | G12 | 4.30 | -37 | -6.2 | 5.634 | 0.774 | 13.68 | 28.12 | 0.33 | 3.086 | 1.267 |
| 5/26/2011 | LDWF | 29.795056 | -91.177472 | 13 | Little Bayou Sorrel | | 5.80 | -38 | -6.2 | | | | | | | |
| 5/26/2011 | LDWF | 29.803722 | -91.230778 | 14 | Little Bayou Sorrel | | 5.30 | -39 | -6.4 | | | | | | | |
| 5/26/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | I15 | 3.90 | -39 | -6.2 | 4.790 | 1.008 | 13.12 | 37.01 | 0.82 | 4.024 | 0.942 |
| 5/26/2011 | LDWF | 29.761361 | -91.217528 | 17 | Flat Lake | | 1.50 | -38 | -6.0 | | | | | | | |
| 5/26/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | H18 | 2.50 | -38 | -6.0 | 4.593 | 0.923 | 10.21 | 25.76 | 0.51 | 3.629 | 0.849 |
| 5/26/2011 | LDWF | 29.757306 | -91.193167 | 19 | Flat Lake | | 2.00 | -38 | -6.2 | | | | | | | |
| 5/26/2011 | LDWF | 29.765694 | -91.177472 | 20 | Intracoastal Waterway | | 2.60 | -39 | -6.1 | | | | | | | |
| 5/26/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | | 4.00 | -38 | -6.0 | | | | | | | |
| 5/26/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | | 3.20 | -39 | -6.0 | | | | | | | |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | VT ID | Depth (m) | dD_H permil | d18_16 permil | NPOC (mg/L) | TDN (mg/L) | Cl (mg/L) | SO4 (mg/L) | NO3 (mg/L) | NH3 (uM) | PO3 (uM) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5/26/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | | | -39 | -6.3 | | | | | | | |
| 5/26/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | | 3.60 | -37 | -6.0 | | | | | | | |
| 5/26/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | B2 | 9.51 | | | 5.331 | 1.100 | 12.99 | 37.59 | 0.86 | 3.134 | 1.258 |
| 5/26/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | C5 | 5.06 | | | 5.967 | 0.888 | 11.59 | 29.28 | 0.51 | 2.824 | 1.454 |
| 6/2/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | ND1 | | -42 | -7.2 | 5.691 | 1.14 | 13.83 | 41.21 | 0.78 | 2.63 | 2.21 |
| 6/2/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | WC | | -41 | -7.3 | 5.328 | 1.16 | 14.13 | 30.05 | 0.18 | 4.36 | 2.45 |
| 6/2/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | WC+GR | | -41 | -7.3 | 5.726 | 1.03 | 17.98 | 46.27 | 0.63 | 9.90 | 1.63 |
| 6/2/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | J24 | 8.00 | -38 | -6.7 | 5.404 | 1.16 | 16.90 | 43.69 | 1.11 | 3.20 | 1.45 |
| 6/2/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | D7 | 5.00 | -40 | -7.3 | 5.6 | 0.89 | 11.02 | 26.99 | 0.44 | 4.61 | 2.15 |
| 6/2/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | E10 | 7.00 | -39 | -7.0 | 5.2 | 1.06 | 22.65 | 67.05 | 1.38 | 4.55 | 1.01 |
| 6/2/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | F11 | 6.50 | -38 | -6.7 | 5.4 | 1.16 | 16.55 | 41.75 | 1.01 | 3.52 | 1.47 |
| 6/2/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | G12 | 3.60 | -41 | -7.2 | 5.3 | 0.87 | 12.75 | 34.00 | 0.49 | 4.14 | 2.01 |
| 6/2/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | I15 | 4.10 | -40 | -7.3 | 4.9 | 1.09 | 15.62 | 43.11 | 0.98 | 5.05 | 0.99 |
| 6/2/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | H18 | 4.00 | -41 | -7.2 | 5.4 | 0.71 | 15.39 | 38.30 | 0.33 | 3.75 | 2.01 |
| 6/2/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | C5 | 5.50 | -40 | -7.1 | 5.5 | 1.00 | 30.82 | 86.78 | 0.85 | 3.89 | 2.18 |
| 6/9/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | ND1 | | | | | | 23.98 | 99.43 | 0.71 | 4.45 | 3.95 |
| 6/9/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | WC | | | | 5.52 | 0.88 | 16.98 | 47.99 | 0.60 | 4.80 | 1.59 |
| 6/9/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | WC+GR | | | | 5.92 | 0.55 | 14.13 | 38.14 | 0.01 | 6.88 | 2.91 |
| 6/9/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | J24 | 4.49 | | | 5.66 | 1.28 | 15.99 | 37.24 | 0.96 | 2.38 | 1.13 |
| 6/9/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | D7 | 8.20 | | | 6.04 | 0.84 | 14.44 | 40.01 | 0.26 | 2.73 | 0.77 |
| 6/9/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | E10 | 5.40 | | | | | 15.82 | 35.23 | 0.60 | 2.76 | 1.90 |
| 6/9/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | F11 | 5.70 | | | 5.72 | 1.25 | 18.07 | 48.76 | 1.05 | 1.82 | 1.25 |
| 6/9/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | G12 | 6.70 | | | 5.48 | 0.64 | 14.75 | 37.78 | 0.30 | 3.45 | 1.62 |
| 6/9/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | I15 | 6.70 | | | 5.25 | 0.82 | 17.31 | 43.71 | 0.62 | 3.24 | 1.16 |
| 6/9/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | H18 | 5.80 | | | 5.29 | 0.51 | 33.72 | 76.21 | 0.71 | 1.75 | 1.20 |
| 6/9/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | B2 | | | | 6.92 | 0.93 | 19.79 | 55.02 | 0.52 | 5.11 | 1.28 |
| 6/9/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | C5 | | | | 13.45 | 1.46 | 22.51 | 45.37 | 0.33 | 5.37 | 2.10 |
| 6/16/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | ND1 | | | | 7.35 | 0.73 | 22.01 | 64.65 | 0.03 | 13.26 | 9.95 |
| 6/16/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | WC | | | | 7.19 | 0.61 | 14.45 | 41.44 | 0.71 | 6.60 | 8.68 |
| 6/16/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | WC+GR | | | | 5.30 | 1.77 | 12.99 | 33.66 | 1.49 | 2.02 | 1.13 |
| 6/16/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | J24 | 4.59 | -40 | -6.2 | 5.61 | 1.71 | 16.70 | 50.16 | 1.87 | 3.31 | 1.66 |
| 6/16/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | | 2.98 | -36 | -4.9 | | | | | | | |
| 6/16/2011 | LDWF | 30.283111 | -91.686306 | 35 | River | | 2.75 | -38 | -6.0 | | | | | | | |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | VT ID | Depth (m) | dD_H permil | d18_16 permil | NPOC (mg/L) | TDN (mg/L) | Cl (mg/L) | SO4 (mg/L) | NO3 (mg/L) | NH3 (uM) | PO3 (uM) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6/16/2011 | LDWF | 30.008833 | -91.270139 | 6 | Bayou Postillion | | 4.20 | -38 | -6.3 | | | | | | | |
| 6/16/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | D7 | > 7.3 | -38 | -6.1 | 6.0 | 0.60 | 16.14 | 43.47 | 0.22 | 3.75 | 2.55 |
| 6/16/2011 | LDWF | 29.958889 | -91.265083 | 8 | Intracoastal Waterway | | > 7.3 | -38 | -6.4 | | | | | | | |
| 6/16/2011 | LDWF | 29.901056 | -91.294750 | 9 | Stream | | 4.90 | -37 | -6.1 | | | | | | | |
| 6/16/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | E10 | 5.40 | -35 | -5.9 | 5.7 | 0.78 | 17.85 | 41.58 | 0.50 | 1.70 | 1.59 |
| 6/16/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | F11 | 5.00 | -34 | -5.8 | 5.9 | 1.11 | 14.67 | 38.67 | 0.89 | 2.28 | 2.21 |
| 6/16/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | G12 | 5.70 | -38 | -6.3 | 5.810 | 0.54 | 12.45 | 25.48 | 0.08 | 5.53 | 3.21 |
| 6/16/2011 | LDWF | 29.795056 | -91.177472 | 13 | Little Bayou Sorrel | | 4.90 | -39 | -6.3 | | | | | | | |
| 6/16/2011 | LDWF | 29.803722 | -91.230778 | 14 | Little Bayou Sorrel | | 5.10 | -36 | -5.7 | | | | | | | |
| 6/16/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | I15 | 4.80 | -34 | -5.6 | 5.631 | 1.07 | 19.31 | 52.60 | 0.88 | 3.99 | 2.61 |
| 6/16/2011 | LDWF | 29.761361 | -91.217528 | 17 | Flat Lake | | 2.00 | -35 | -5.9 | | | | | | | |
| 6/16/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | H18 | 4.70 | -36 | -5.9 | 5.937 | 0.43 | 13.91 | 33.26 | 0.03 | 2.40 | 2.08 |
| 6/16/2011 | LDWF | 29.757306 | -91.193167 | 19 | Flat Lake | | 1.70 | -38 | -6.4 | | | | | | | |
| 6/16/2011 | LDWF | 29.765694 | -91.177472 | 20 | Intracoastal Waterway | | 3.50 | -38 | -6.2 | | | | | | | |
| 6/16/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | | 5.00 | -36 | -6.0 | | | | | | | |
| 6/16/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | | 4.30 | -38 | -6.2 | | | | | | | |
| 6/16/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | | 3.80 | -37 | -6.0 | | | | | | | |
| 6/16/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | | 4.10 | -35 | -5.7 | | | | | | | |
| 6/16/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | B2 | | | | 6.1 | 0.77 | 26.63 | 81.44 | 0.93 | 3.53 | 2.06 |
| 6/16/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | C5 | | | | 6.5 | 0.81 | 15.10 | 38.03 | 0.36 | 3.74 | 1.87 |
| 6/23/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | ND1 | | | | 8.81 | 0.66 | 13.91 | 27.69 | 0.08 | 3.97 | 12.57 |
| 6/23/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | WC | | | | 8.41 | 0.69 | 16.00 | 33.26 | 0.05 | 10.69 | 12.86 |
| 6/23/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | WC+GR | | | | 7.22 | 0.56 | 14.00 | 31.14 | -0.02 | 12.17 | 12.43 |
| 6/23/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | J24 | 2.67 | -38 | -6.2 | 5.52 | 1.84 | 16.40 | 48.35 | 1.81 | 0.75 | 1.92 |
| 6/23/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | | 1.55 | -37 | -6.1 | | | | | | | |
| 6/23/2011 | LDWF | 30.283111 | -91.686306 | 35 | River | | 1.22 | -38 | -6.3 | | | | | | | |
| 6/23/2011 | LDWF | 30.008833 | -91.270139 | 6 | Bayou Postillion | | 2.20 | -37 | -6.1 | | | | | | | |
| 6/23/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | D7 | 6.40 | -38 | -6.2 | 6.52 | 0.65 | 15.03 | 35.84 | 0.21 | 6.69 | 4.77 |
| 6/23/2011 | LDWF | 29.958889 | -91.265083 | 8 | Intracoastal Waterway | | > 6.9 | -37 | -6.2 | | | | | | | |
| 6/23/2011 | LDWF | 29.901056 | -91.294750 | 9 | Stream | | 4.20 | -36 | -6.0 | | | | | | | |
| 6/23/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | E10 | 4.60 | -34 | -5.7 | 7.26 | 0.69 | 14.40 | 35.53 | 0.37 | 2.31 | 2.10 |
| 6/23/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | F11 | 4.40 | -36 | -5.7 | 5.32 | 1.32 | 18.97 | 60.31 | 1.10 | 3.13 | 2.77 |
| 6/23/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | G12 | 5.10 | -37 | -6.0 | | | 14.89 | 34.76 | 0.07 | 4.72 | 4.24 |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | VT ID | Depth (m) | dD_H permil | d18_16 permil | NPOC (mg/L) | TDN (mg/L) | Cl (mg/L) | SO4 (mg/L) | NO3 (mg/L) | NH3 (uM) | PO3 (uM) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6/23/2011 | LDWF | 29.795056 | -91.177472 | 13 | Little Bayou Sorrel | | 5.40 | -37 | -6.2 | | | | | | | |
| 6/23/2011 | LDWF | 29.803722 | -91.230778 | 14 | Little Bayou Sorrel | | 4.20 | -35 | -6.0 | | | | | | | |
| 6/23/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | I15 | 5.40 | -35 | -5.8 | 6.01 | 1.10 | 15.53 | 40.57 | 0.86 | 3.34 | 1.62 |
| 6/23/2011 | LDWF | 29.761361 | -91.217528 | 17 | Flat Lake | | 1.70 | -34 | -5.6 | | | | | | | |
| 6/23/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | H18 | 5.00 | -35 | -5.8 | 5.89 | 0.38 | 14.29 | 30.54 | 0.07 | 2.17 | 5.19 |
| 6/23/2011 | LDWF | 29.757306 | -91.193167 | 19 | Flat Lake | | 1.10 | -37 | -6.2 | | | | | | | |
| 6/23/2011 | LDWF | 29.765694 | -91.177472 | 20 | Intracoastal Waterway | | 4.30 | -37 | -6.0 | | | | | | | |
| 6/23/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | | 5.70 | -37 | -6.2 | | | | | | | |
| 6/23/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | | 4.70 | -37 | -5.8 | | | | | | | |
| 6/23/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | | 4.70 | -39 | -6.0 | | | | | | | |
| 6/23/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | | 1.00 | -37 | -5.7 | | | | | | | |
| 6/23/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | B2 | | | | 5.75 | 2.01 | 15.54 | 48.43 | 1.91 | 1.31 | 1.36 |
| 6/23/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | C5 | | | | 6.44 | 1.04 | 14.93 | 37.90 | 0.65 | 4.61 | 3.01 |
| 6/30/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | | 1.62 | -41 | -6.3 | | | | | | | |
| 6/30/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | | 2.32 | -41 | -6.4 | | | | | | | |
| 6/30/2011 | LDWF | 30.283111 | -91.686306 | 35 | River | | 2.48 | -42 | -6.7 | | | | | | | |
| 6/30/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | | 5.00 | -36 | -5.8 | | | | | | | |
| 6/30/2011 | LDWF | 29.795056 | -91.177472 | 13 | Little Bayou Sorrel | | 4.70 | -37 | -5.8 | | | | | | | |
| 6/30/2011 | LDWF | 29.803722 | -91.230778 | 14 | Little Bayou Sorrel | | 5.10 | -35 | -5.4 | | | | | | | |
| 6/30/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | | 5.80 | -37 | -5.8 | | | | | | | |
| 6/30/2011 | LDWF | 29.761361 | -91.217528 | 17 | Flat Lake | | 1.70 | -36 | -5.6 | | | | | | | |
| 6/30/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | | 5.10 | -36 | -5.7 | | | | | | | |
| 6/30/2011 | LDWF | 29.757306 | -91.193167 | 19 | Flat Lake | | 0.90 | -37 | -5.8 | | | | | | | |
| 6/30/2011 | LDWF | 29.765694 | -91.177472 | 20 | Intracoastal Waterway | | 5.80 | -37 | -5.8 | | | | | | | |
| 6/30/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | | 5.30 | -41 | -6.2 | | | | | | | |
| 6/30/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | | 5.10 | -37 | -5.6 | | | | | | | |
| 6/30/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | | 5.60 | -39 | -6.1 | | | | | | | |
| 6/30/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | | 2.50 | -38 | -5.8 | | | | | | | |
| 7/7/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | ND1 | | | | 8.51 | 0.60 | 12.34 | 16.64 | -0.01 | 2.24 | 11.81 |
| 7/7/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | WC | | | | 8.30 | 0.59 | 25.96 | 44.87 | -0.02 | 3.24 | 6.81 |
| 7/7/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | WC+GR | | | | 7.87 | 0.62 | 17.41 | 34.55 | -0.13 | 5.13 | 7.91 |
| 7/7/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | J24 | 3.26 | | | 5.05 | 2.15 | 22.36 | 77.31 | 2.47 | 1.21 | 1.75 |
| 7/7/2011 | LDWF | 30.283111 | -91.686306 | 35 | River | | | -43 | -6.5 | | | | | | | |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | VT ID | Depth (m) | dD_H permil | d18_16 permil | NPOC (mg/L) | TDN (mg/L) | Cl (mg/L) | SO4 (mg/L) | NO3 (mg/L) | NH3 (uM) | PO3 (uM) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/7/2011 | LDWF | 30.008833 | -91.270139 | 6 | Bayou Postillion | | 2.70 | -41 | -6.2 | | | | | | | |
| 7/7/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | D7 | 3.30 | -38 | -5.9 | 6.17 | 0.73 | 30.83 | 92.85 | 0.67 | 2.96 | 1.79 |
| 7/7/2011 | LDWF | 29.958889 | -91.265083 | 8 | Intracoastal Waterway | | 5.70 | -41 | -6.2 | | | | | | | |
| 7/7/2011 | LDWF | 29.901056 | -91.294750 | 9 | Stream | | 2.80 | -37 | -5.5 | | | | | | | |
| 7/7/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | E10 | 3.80 | -38 | -5.7 | 5.83 | 0.52 | 11.28 | 24.32 | -0.03 | 1.71 | 1.41 |
| 7/7/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | F11 | 3.30 | -40 | -6.1 | 5.29 | 1.15 | 14.70 | 37.01 | 0.61 | 1.71 | 0.60 |
| 7/7/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | G12 | 4.40 | -37 | -5.6 | 6.40 | 0.51 | 31.04 | 77.79 | 0.01 | 2.04 | 1.59 |
| 7/7/2011 | LDWF | 29.795056 | -91.177472 | 13 | Little Bayou Sorrel | | 3.40 | -36 | -5.6 | | | | | | | |
| 7/7/2011 | LDWF | 29.803722 | -91.230778 | 14 | Little Bayou Sorrel | | 3.60 | -35 | -5.3 | | | | | | | |
| 7/7/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | I15 | 3.00 | -40 | -6.0 | 5.47 | 1.28 | 19.59 | 62.41 | 0.98 | 3.16 | 1.88 |
| 7/7/2011 | LDWF | 29.761361 | -91.217528 | 17 | Flat Lake | | 1.20 | -38 | -5.8 | | | | | | | |
| 7/7/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | H18 | 4.00 | -36 | -5.4 | 5.82 | 0.49 | 14.31 | 26.80 | -0.10 | 1.75 | 3.09 |
| 7/7/2011 | LDWF | 29.757306 | -91.193167 | 19 | Flat Lake | | 0.60 | -38 | -5.8 | | | | | | | |
| 7/7/2011 | LDWF | 29.765694 | -91.177472 | 20 | Intracoastal Waterway | | 6.60 | -40 | -6.1 | | | | | | | |
| 7/7/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | | 6.40 | -43 | -6.4 | | | | | | | |
| 7/7/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | | 6.00 | -39 | -5.8 | | | | | | | |
| 7/7/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | | 6.90 | -41 | -6.1 | | | | | | | |
| 7/7/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | | 2.50 | -42 | -6.3 | | | | | | | |
| 7/7/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | B2 | | | | 4.42 | 2.16 | 45.58 | 161.45 | 5.80 | 1.80 | 1.28 |
| 7/7/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | C5 | | | | 5.70 | 1.11 | 27.27 | 77.91 | 1.25 | 2.93 | 2.29 |
| 7/14/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | | 5.69 | -46 | -7.1 | | | | | | | |
| 7/14/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | | 5.61 | -41 | -5.1 | | | | | | | |
| 7/14/2011 | LDWF | 30.283111 | -91.686306 | 35 | River | | 3.50 | -46 | -7.0 | | | | | | | |
| 7/14/2011 | LDWF | 30.008833 | -91.270139 | 6 | Bayou Postillion | | 3.30 | -43 | -6.4 | | | | | | | |
| 7/14/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | | 3.70 | -40 | -6.0 | | | | | | | |
| 7/14/2011 | LDWF | 29.958889 | -91.265083 | 8 | Intracoastal Waterway | | 5.20 | -42 | -6.4 | | | | | | | |
| 7/14/2011 | LDWF | 29.901056 | -91.294750 | 9 | Stream | | 3.00 | -37 | -5.7 | | | | | | | |
| 7/14/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | | 3.10 | -38 | -5.9 | | | | | | | |
| 7/14/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | | 3.00 | -41 | -6.1 | | | | | | | |
| 7/14/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | | 5.00 | -38 | -6.4 | | | | | | | |
| 7/14/2011 | LDWF | 29.795056 | -91.177472 | 13 | Little Bayou Sorrel | | 5.20 | -36 | -5.6 | | | | | | | |
| 7/14/2011 | LDWF | 29.803722 | -91.230778 | 14 | Little Bayou Sorrel | | 4.50 | -36 | -5.5 | | | | | | | |
| 7/14/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | | 3.50 | -41 | -6.3 | | | | | | | |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | VT ID | Depth (m) | dD_H permil | d18_16 permil | NPOC (mg/L) | TDN (mg/L) | Cl (mg/L) | SO4 (mg/L) | NO3 (mg/L) | NH3 (uM) | PO3 (uM) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/14/2011 | LDWF | 29.761361 | -91.217528 | 17 | Flat Lake | | 1.30 | -40 | -6.1 | | | | | | | |
| 7/14/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | | 4.60 | -34 | -5.5 | | | | | | | |
| 7/14/2011 | LDWF | 29.757306 | -91.193167 | 19 | Flat Lake | | 0.60 | -40 | -6.2 | | | | | | | |
| 7/14/2011 | LDWF | 29.765694 | -91.177472 | 20 | Intracoastal Waterway | | 5.90 | -41 | -6.2 | | | | | | | |
| 7/14/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | | 5.70 | -46 | -6.9 | | | | | | | |
| 7/14/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | | 3.60 | -40 | -6.2 | | | | | | | |
| 7/14/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | | 5.80 | -45 | -6.9 | | | | | | | |
| 7/14/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | | 2.50 | -44 | -6.6 | | | | | | | |
| 7/21/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | | 6.34 | -45 | -6.6 | | | | | | | |
| 7/21/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | | 5.67 | -46 | -6.7 | | | | | | | |
| 7/21/2011 | LDWF | 30.283111 | -91.686306 | 35 | River | | 5.80 | -48 | -7.0 | | | | | | | |
| 7/21/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | | 5.70 | | | 5.66 | 0.81 | 15.64 | 45.59 | 0.30 | 4.25 | 2.80 |
| 7/21/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | | 3.50 | | | 5.53 | 0.48 | 13.64 | 34.15 | -0.10 | 2.71 | 2.83 |
| 7/21/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | | 3.20 | | | 5.29 | 1.15 | 11.40 | 31.70 | 0.09 | 1.46 | 1.26 |
| 7/21/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | | 3.80 | | | 5.39 | 0.46 | 34.79 | 116.21 | 0.13 | 2.99 | 2.83 |
| 7/21/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | | 6.00 | | | 4.99 | 0.98 | 17.89 | 61.01 | 0.67 | 3.57 | 1.80 |
| 7/21/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | | 4.20 | | | 5.45 | 0.33 | 14.70 | 34.58 | 0.08 | 0.87 | 5.37 |
| 7/21/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | | 2.53 | | | | | 16.30 | 65.47 | 1.90 | 0.39 | 2.65 |
| 7/21/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | | | | | | | 12.28 | 37.18 | 0.65 | 5.71 | 3.87 |
| 7/28/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | | 5.25 | -43 | -6.4 | | | | | | | |
| 7/28/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | | 5.66 | -46 | -6.8 | | | | | | | |
| 7/28/2011 | LDWF | 30.283111 | -91.686306 | 35 | River | | 5.53 | -47 | -6.8 | | | | | | | |
| 8/4/2011 | USFWS | 30.385043 | -91.573634 | ND1 | North Drain 1 | ND1 | | | | | | 11.52 | 14.37 | 0.13 | 4.41 | 11.29 |
| 8/4/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | WC | | | | | | 12.41 | 19.87 | 0.18 | 3.42 | 10.49 |
| 8/4/2011 | USFWS | 30.243357 | -91.525594 | WC+GR | Work Canal at Grand River | WC+GR | | | | | | 11.30 | 13.42 | 0.15 | | |
| 8/4/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | J24 | 4.28 | -49 | -7.3 | | | | | | | |
| 8/4/2011 | LDWF | 30.474278 | -91.538778 | 25 | Bayou Crook Chene | | 5.72 | -50 | -7.1 | | | | | | | |
| 8/4/2011 | LDWF | 30.283111 | -91.686306 | 35 | River | | 5.12 | -50 | -7.3 | | | | | | | |
| 8/4/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | D7 | 5.10 | | | | | 13.29 | 39.37 | 0.15 | 2.78 | 3.82 |
| 8/4/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | E10 | 3.60 | | | | | 13.83 | 41.22 | 0.08 | 2.78 | 3.77 |
| 8/4/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | F11 | 2.80 | | | | | 13.96 | 44.06 | 0.07 | 0.34 | 1.57 |
| 8/4/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | G12 | 3.90 | | | | | 13.77 | 39.23 | 0.26 | 2.34 | 4.56 |
| 8/4/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | I15 | 3.70 | | | | | 14.01 | 47.70 | 0.47 | 2.42 | 2.73 |

| Date | Sampling Agency | Latitude | Longitude | Site ID | Site Description | VT ID | Depth (m) | dD_H permil | d18_16 permil | NPOC (mg/L) | TDN (mg/L) | Cl (mg/L) | SO4 (mg/L) | NO3 (mg/L) | NH3 (uM) | PO3 (uM) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8/4/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | H18 | 3.80 | | | | | 13.59 | 38.16 | 0.05 | 0.91 | 2.56 |
| 8/4/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | B2 | | | | | | 25.53 | 0.00 | 2.23 | 0.74 | 1.97 |
| 8/4/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | C5 | | | | | | 17.91 | 55.78 | 0.37 | 4.09 | 4.96 |
| 9/8/2011 | USFWS | 30.380282 | -91.556983 | WC | Work Canal | WC | | | | 9.12 | 1.01 | 6.80 | 46.43 | 0.45 | 5.21 | 3.45 |
| 9/8/2011 | LDWF | 30.221528 | -91.591250 | 24 | Lake Rond | J24 | 6.15 | | | 5.17 | 0.83 | 34.16 | 88.69 | 0.63 | 3.39 | 3.12 |
| 9/8/2011 | LDWF | 30.008833 | -91.270139 | 6 | Bayou Postillion | | 3.20 | -55 | -7.6 | | | | | | | |
| 9/8/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | D7 | 5.30 | -57 | -7.9 | 5.54 | 0.48 | 17.77 | 77.31 | 0.15 | 2.85 | 2.02 |
| 9/8/2011 | LDWF | 29.958889 | -91.265083 | 8 | Intracoastal Waterway | | 4.20 | -57 | -7.8 | | | | | | | |
| 9/8/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | E10 | 3.10 | -54 | -7.7 | 6.09 | 0.44 | 0.00 | 0.00 | 0.00 | 1.89 | 3.01 |
| 9/8/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | F11 | 3.20 | -57 | -7.8 | 5.75 | 0.42 | 15.67 | 64.02 | 0.06 | 1.07 | 2.63 |
| 9/8/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | G12 | 4.10 | -56 | -7.8 | 5.30 | 0.59 | 17.78 | 78.79 | 0.30 | 1.67 | 2.06 |
| 9/8/2011 | LDWF | 29.795056 | -91.177472 | 13 | Little Bayou Sorrel | | 3.80 | -54 | -7.6 | | | | | | | |
| 9/8/2011 | LDWF | 29.803722 | -91.230778 | 14 | Little Bayou Sorrel | | 3.10 | -54 | -7.6 | | | | | | | |
| 9/8/2011 | LDWF | 29.764250 | -91.226889 | 15 | Dog Island Pass | I15 | 2.40 | -57 | -7.8 | 5.29 | 0.51 | 16.18 | 64.76 | 0.18 | 1.44 | 1.42 |
| 9/8/2011 | LDWF | 29.761361 | -91.217528 | 17 | Flat Lake | | 0.50 | -56 | -7.9 | | | | | | | |
| 9/8/2011 | LDWF | 29.773639 | -91.209583 | 18 | Flat Lake | H18 | 3.50 | -53 | -7.6 | 5.72 | 0.43 | 15.03 | 52.32 | 0.11 | 3.20 | 2.70 |
| 9/8/2011 | LDWF | 29.757306 | -91.193167 | 19 | Flat Lake | | 0.30 | -55 | -7.6 | | | | | | | |
| 9/8/2011 | LDWF | 29.765694 | -91.177472 | 20 | Intracoastal Waterway | | 3.80 | -54 | -7.3 | | | | | | | |
| 9/8/2011 | LDWF | 29.724778 | -91.217333 | 21 | 66.0 ft | | 6.00 | -54 | -7.5 | | | | | | | |
| 9/8/2011 | LDWF | 29.725083 | -91.197056 | 22 | Intracoastal Waterway | | 1.80 | -55 | -7.9 | | | | | | | |
| 9/8/2011 | LDWF | 29.716083 | -91.219722 | 23 | 66.0 ft | | 5.30 | -52 | -7.1 | | | | | | | |
| 9/8/2011 | LDWF | 29.789250 | -91.290250 | 36 | Lake | | 1.40 | -57 | -7.7 | | | | | | | |
| 9/8/2011 | USGS | 30.162889 | -91.357333 | 2 | GIWW at Bayou Sorrel | B2 | | | | 5.1 | 1.0 | 33.93 | 92.06 | 0.69 | 1.29 | 2.12 |
| 9/8/2011 | USGS | 30.057306 | -91.368389 | 5 | Cross Bayou at Little Bayou Pigeon | C5 | | | | 6.3 | 0.6 | 14.13 | 62.02 | 0.15 | 3.16 | 3.11 |
| 10/12/2011 | LDWF | 30.008833 | -91.270139 | 6 | Bayou Postillion | D7 | 2.50 | | | 4.3 | 0.5 | 23.46 | 94.76 | 0.34 | 1.47 | 0.99 |
| 10/12/2011 | LDWF | 29.948056 | -91.269056 | 7 | Old River | E10 | 3.70 | | | 4.9 | 0.3 | 19.37 | 81.25 | 0.23 | 1.45 | 2.20 |
| 10/12/2011 | LDWF | 29.958889 | -91.265083 | 8 | Intracoastal Waterway | F11 | 4.60 | | | 5.49 | 0.42 | 19.94 | 86.28 | 0.13 | 1.61 | 3.93 |
| 10/12/2011 | LDWF | 29.901056 | -91.294750 | 9 | Stream | G12 | 2.40 | | | 3.86 | 0.72 | 22.30 | 87.70 | 0.52 | 6.82 | 1.18 |
| 10/12/2011 | LDWF | 29.913361 | -94.321972 | 10 | Stream | H18 | 2.70 | | | 4.65 | 0.47 | 25.49 | 99.74 | 0.29 | 6.68 | 2.93 |
| 10/12/2011 | LDWF | 29.894917 | -91.365667 | 11 | Stream | I15 | 2.40 | | | 3.89 | 0.48 | 23.26 | 92.76 | 0.40 | 7.30 | 16.01 |
| 10/12/2011 | LDWF | 29.854667 | -91.214167 | 12 | Pipeline | J24 | 3.50 | | | 4.39 | 0.81 | 29.32 | 112.79 | 0.83 | 1.21 | 1.52 |

Note: NP Org C stands Non-Purgeable Organic Carbon
Total N stands for Total Nitrogen
dD_H stands for delta Deuterium isotope (heavy Hydrogen or $^{2}H$) reported in per mil
d18_16 stands for the delta of Oxygen 18 ($^{18}O$) to Nitrogen 16 ($^{16}N$) reported in per mil

## Table D9. USGS Sediment Analyses

| Date | OLD RIVER OUTFLOW CHANNEL NR KNOX LANDING | Atchafalaya River at Simmesport, LA | USGS 07381530 Morganza Spillway at Hwy 190 near Lottie, LA | | |
|---|---|---|---|---|---|
| | TSS (tons/day) | TSS (tons/day) | Discharge (cfs) | TSS (< 0.06 mm) | TSS (mg/L) |
| 1/1/2011 | 112000 | 78000 | | | |
| 1/2/2011 | 104000 | 72000 | | | |
| 1/3/2011 | 102000 | 69000 | | | |
| 1/4/2011 | 100000 | 71000 | | | |
| 1/5/2011 | 96000 | 69000 | | | |
| 1/6/2011 | 94000 | 67000 | | | |
| 1/7/2011 | 95000 | 65000 | | | |
| 1/8/2011 | 98000 | 67000 | | | |
| 1/9/2011 | 101000 | 68000 | | | |
| 1/10/2011 | 106000 | 70000 | | | |
| 1/11/2011 | 118000 | 76000 | | | |
| 1/12/2011 | 130000 | 87000 | | | |
| 1/13/2011 | 137000 | 91000 | | | |
| 1/14/2011 | 150000 | 95000 | | | |
| 1/15/2011 | 163000 | 104000 | | | |
| 1/16/2011 | 164000 | 112000 | | | |
| 1/17/2011 | 149000 | 110000 | | | |
| 1/18/2011 | 143000 | 113000 | | | |
| 1/19/2011 | 114000 | 99000 | | | |
| 1/20/2011 | 101000 | 88000 | | | |
| 1/21/2011 | 101000 | 84000 | | | |
| 1/22/2011 | 104000 | 81000 | | | |
| 1/23/2011 | 96000 | 77000 | | | |
| 1/24/2011 | 98000 | 78000 | | | |
| 1/25/2011 | 99000 | 81000 | | | |
| 1/26/2011 | 87000 | 87000 | | | |
| 1/27/2011 | 75000 | 80000 | | | |
| 1/28/2011 | 74000 | 77000 | | | |
| 1/29/2011 | 77000 | 75000 | | | |
| 1/30/2011 | 76000 | 75000 | | | |
| 1/31/2011 | 75000 | 73000 | | | |
| 2/1/2011 | 81000 | 80000 | | | |
| 2/2/2011 | 78000 | 84000 | | | |
| 2/3/2011 | 67000 | 75000 | | | |
| 2/4/2011 | 73000 | 79000 | | | |
| 2/5/2011 | 77000 | 83000 | | | |
| 2/6/2011 | 80000 | 84000 | | | |
| 2/7/2011 | 82000 | 88000 | | | |
| 2/8/2011 | 84000 | 92000 | | | |
| 2/9/2011 | 83000 | 89000 | | | |
| 2/10/2011 | 89000 | 92000 | | | |
| 2/11/2011 | 96000 | 99000 | | | |
| 2/12/2011 | 111000 | 110000 | | | |
| 2/13/2011 | 118000 | 113000 | | | |
| 2/14/2011 | 123000 | 115000 | | | |
| 2/15/2011 | 132000 | 123000 | | | |
| 2/16/2011 | 132000 | 124000 | | | |
| 2/17/2011 | 133000 | 126000 | | | |
| 2/18/2011 | 130000 | 129000 | | | |
| 2/19/2011 | 119000 | 122000 | | | |
| 2/20/2011 | 113000 | 120000 | | | |

| Date | OLD RIVER OUTFLOW CHANNEL NR KNOX LANDING | Atchafalaya River at Simmesport, LA | USGS 07381530 Morganza Spillway at Hwy 190 near Lottie, LA | | |
|---|---|---|---|---|---|
| | TSS (tons/day) | TSS (tons/day) | Discharge (cfs) | TSS (< 0.06 mm) | TSS (mg/L) |
| 2/21/2011 | 104000 | 111000 | | | |
| 2/22/2011 | 103000 | 113000 | | | |
| 2/23/2011 | 100000 | 112000 | | | |
| 2/24/2011 | 98000 | 109000 | | | |
| 2/25/2011 | 103000 | 118000 | | | |
| 2/26/2011 | 111000 | 128000 | | | |
| 2/27/2011 | 127000 | 137000 | | | |
| 2/28/2011 | 153000 | 167000 | | | |
| 3/1/2011 | 178000 | 207000 | | | |
| 3/2/2011 | 199000 | 223000 | | | |
| 3/3/2011 | 222000 | 238000 | | | |
| 3/4/2011 | 245000 | 268000 | | | |
| 3/5/2011 | 257000 | 278000 | | | |
| 3/6/2011 | 279000 | 296000 | | | |
| 3/7/2011 | 297000 | 311000 | | | |
| 3/8/2011 | 317000 | 325000 | | | |
| 3/9/2011 | 318000 | 350000 | | | |
| 3/10/2011 | 298000 | 353000 | | | |
| 3/11/2011 | 307000 | 349000 | | | |
| 3/12/2011 | 325000 | 351000 | | | |
| 3/13/2011 | 336000 | 353000 | | | |
| 3/14/2011 | 343000 | 355000 | | | |
| 3/15/2011 | 350000 | 351000 | | | |
| 3/16/2011 | 358000 | 350000 | | | |
| 3/17/2011 | 364000 | 340000 | | | |
| 3/18/2011 | 369000 | 333000 | | | |
| 3/19/2011 | 372000 | 323000 | | | |
| 3/20/2011 | 374000 | 311000 | | | |
| 3/21/2011 | 374000 | 296000 | | | |
| 3/22/2011 | 379000 | 290000 | | | |
| 3/23/2011 | 381000 | 276000 | | | |
| 3/24/2011 | 381000 | 267000 | | | |
| 3/25/2011 | 386000 | 259000 | | | |
| 3/26/2011 | 391000 | 251000 | | | |
| 3/27/2011 | 394000 | 241000 | | | |
| 3/28/2011 | 398000 | 233000 | | | |
| 3/29/2011 | 401000 | 226000 | | | |
| 3/30/2011 | 397000 | 223000 | | | |
| 3/31/2011 | 407000 | 231000 | | | |
| 4/1/2011 | 398000 | 227000 | | | |
| 4/2/2011 | 402000 | 227000 | | | |
| 4/3/2011 | 403000 | 229000 | | | |
| 4/4/2011 | 400000 | 225000 | | | |
| 4/5/2011 | 398000 | 226000 | | | |
| 4/6/2011 | 391000 | 224000 | | | |
| 4/7/2011 | 376000 | 218000 | | | |
| 4/8/2011 | 364000 | 210000 | | | |
| 4/9/2011 | 355000 | 203000 | | | |
| 4/10/2011 | 359000 | 199000 | | | |
| 4/11/2011 | 353000 | 195000 | | | |
| 4/12/2011 | 346000 | 194000 | | | |
| 4/13/2011 | 329000 | 189000 | | | |
| 4/14/2011 | 307000 | 180000 | | | |

| Date | OLD RIVER OUTFLOW CHANNEL NR KNOX LANDING | Atchafalaya River at Simmesport, LA | USGS 07381530 Morganza Spillway at Hwy 190 near Lottie, LA | | |
|---|---|---|---|---|---|
| | TSS (tons/day) | TSS (tons/day) | Discharge (cfs) | TSS (< 0.06 mm) | TSS (mg/L) |
| 4/15/2011 | 298000 | 172000 | | | |
| 4/16/2011 | 301000 | 169000 | | | |
| 4/17/2011 | 300000 | 171000 | | | |
| 4/18/2011 | 299000 | 173000 | | | |
| 4/19/2011 | 298000 | 171000 | | | |
| 4/20/2011 | 302000 | 175000 | | | |
| 4/21/2011 | 304000 | 176000 | | | |
| 4/22/2011 | 308000 | 179000 | | | |
| 4/23/2011 | 311000 | 186000 | | | |
| 4/24/2011 | 308000 | 197000 | | | |
| 4/25/2011 | 308000 | 203000 | | | |
| 4/26/2011 | 290000 | 197000 | | | |
| 4/27/2011 | 292000 | 195000 | | | |
| 4/28/2011 | 311000 | 210000 | | | |
| 4/29/2011 | 321000 | 227000 | | | |
| 4/30/2011 | 310000 | 233000 | | | |
| 5/1/2011 | 304000 | 238000 | | | |
| 5/2/2011 | 319000 | 255000 | | | |
| 5/3/2011 | 334000 | 269000 | | | |
| 5/4/2011 | 365000 | 292000 | | | |
| 5/5/2011 | 391000 | 313000 | | | |
| 5/6/2011 | 410000 | 330000 | | | |
| 5/7/2011 | 432000 | 354000 | | | |
| 5/8/2011 | 443000 | 374000 | | | |
| 5/9/2011 | 467000 | 400000 | | | |
| 5/10/2011 | 501000 | 419000 | | | |
| 5/11/2011 | 542000 | 445000 | | | |
| 5/12/2011 | 575000 | 465000 | | | |
| 5/13/2011 | 624000 | 491000 | | | |
| 5/14/2011 | 671000 | 492000 | | | |
| 5/15/2011 | 658000 | 485000 | | | |
| 5/16/2011 | 637000 | 472000 | | | |
| 5/17/2011 | 610000 | 459000 | | | |
| 5/18/2011 | 595000 | 443000 | | 100% | 23 |
| 5/19/2011 | 661000 | 432000 | 171000 | 100% | 23 |
| 5/20/2011 | 665000 | 418000 | 182000 | 98% | 20 |
| 5/21/2011 | 662000 | 405000 | 195000 | 100% | 23 |
| 5/22/2011 | 661000 | 390000 | 185000 | 100% | 14 |
| 5/23/2011 | 660000 | 376000 | 173000 | 99% | 17 |
| 5/24/2011 | 649000 | 360000 | 170000 | 96% | 16 |
| 5/25/2011 | 627000 | 344000 | 178000 | 100% | 18 |
| 5/26/2011 | 602000 | 329000 | 164000 | 100% | 19 |
| 5/27/2011 | 579000 | 314000 | 157000 | 100% | 14 |
| 5/28/2011 | 559000 | 298000 | 139000 | 100% | 20 |
| 5/29/2011 | 542000 | 283000 | 135000 | 97% | 14 |
| 5/30/2011 | 519000 | 266000 | 125000 | 99% | 26 |
| 5/31/2011 | 492000 | 251000 | 119000 | 99% | 14 |
| 6/1/2011 | 469000 | 234000 | 109000 | 91% | 17 |
| 6/2/2011 | 457000 | 220000 | 102000 | 100% | 8 |
| 6/3/2011 | 455000 | 206000 | 89200 | 97% | 23 |
| 6/4/2011 | 452000 | 203000 | 80500 | 88% | 31 |
| 6/5/2011 | 454000 | 200000 | 73200 | 97% | 13 |
| 6/6/2011 | 451000 | 197000 | 73200 | 92% | 12 |

| Date | OLD RIVER OUTFLOW CHANNEL NR KNOX LANDING | Atchafalaya River at Simmesport, LA | USGS 07381530 Morganza Spillway at Hwy 190 near Lottie, LA | | |
|---|---|---|---|---|---|
| | TSS (tons/day) | TSS (tons/day) | Discharge (cfs) | TSS (< 0.06 mm) | TSS (mg/L) |
| 6/7/2011 | 442000 | 192000 | 66200 | 100% | 9 |
| 6/8/2011 | 429000 | 189000 | 59500 | 100% | 14 |
| 6/9/2011 | 409000 | 182000 | 47100 | 100% | 11 |
| 6/10/2011 | 391000 | 177000 | 32600 | 86% | 8 |
| 6/11/2011 | 380000 | 171000 | | | |
| 6/12/2011 | 369000 | 165000 | | | |
| 6/13/2011 | 354000 | 159000 | | | |
| 6/14/2011 | 339000 | 155000 | | | |
| 6/15/2011 | 416000 | 160000 | | | |
| 6/16/2011 | 323000 | 145000 | | | |
| 6/17/2011 | 323000 | 138000 | | | |
| 6/18/2011 | 331000 | 139000 | | | |
| 6/19/2011 | 326000 | 138000 | | | |
| 6/20/2011 | 312000 | 132000 | | | |
| 6/21/2011 | 301000 | 127000 | | | |
| 6/22/2011 | 294000 | 118000 | | | |
| 6/23/2011 | 299000 | 120000 | | | |
| 6/24/2011 | 283000 | 114000 | | | |
| 6/25/2011 | 285000 | 112000 | | | |
| 6/26/2011 | 288000 | 111000 | | | |
| 6/27/2011 | 287000 | 111000 | | | |
| 6/28/2011 | 276000 | 107000 | | | |
| 6/29/2011 | 273000 | 108000 | | | |
| 6/30/2011 | 264000 | 105000 | | | |
| 7/1/2011 | 273000 | 109000 | | | |
| 7/2/2011 | 268000 | 110000 | | | |
| 7/3/2011 | 283000 | 114000 | | | |
| 7/4/2011 | 285000 | 117000 | | | |
| 7/5/2011 | 284000 | 119000 | | | |
| 7/6/2011 | 273000 | 121000 | | | |
| 7/7/2011 | 278000 | 123000 | | | |
| 7/8/2011 | 280000 | 127000 | | | |
| 7/9/2011 | 279000 | 131000 | | | |
| 7/10/2011 | 276000 | 132000 | | | |
| 7/11/2011 | 274000 | 134000 | | | |
| 7/12/2011 | 262000 | 131000 | | | |
| 7/13/2011 | 259000 | 129000 | | | |
| 7/14/2011 | 268000 | 131000 | | | |
| 7/15/2011 | 270000 | 135000 | | | |
| 7/16/2011 | 261000 | 135000 | | | |
| 7/17/2011 | 261000 | 134000 | | | |
| 7/18/2011 | 260000 | 137000 | | | |
| 7/19/2011 | 243000 | 131000 | | | |
| 7/20/2011 | 242000 | 128000 | | | |
| 7/21/2011 | 233000 | 128000 | | | |
| 7/22/2011 | 226000 | 125000 | | | |
| 7/23/2011 | 228000 | 124000 | | | |
| 7/24/2011 | 230000 | 125000 | | | |
| 7/25/2011 | 223000 | 124000 | | | |
| 7/26/2011 | 191000 | 116000 | | | |
| 7/27/2011 | 172000 | 105000 | | | |
| 7/28/2011 | 172000 | 102000 | | | |
| 7/29/2011 | 171000 | 100000 | | | |

| Date | OLD RIVER OUTFLOW CHANNEL NR KNOX LANDING | Atchafalaya River at Simmesport, LA | USGS 07381530 Morganza Spillway at Hwy 190 near Lottie, LA | | |
|---|---|---|---|---|---|
| | TSS (tons/day) | TSS (tons/day) | Discharge (cfs) | TSS (< 0.06 mm) | TSS (mg/L) |
| 7/30/2011 | 183000 | 103000 | | | |
| 7/31/2011 | 179000 | 104000 | | | |
| 8/1/2011 | 178000 | 103000 | | | |
| 8/2/2011 | 167000 | 101000 | | | |
| 8/3/2011 | 159000 | 97000 | | | |
| 8/4/2011 | 151000 | 92000 | | | |
| 8/5/2011 | 151000 | 91000 | | | |
| 8/6/2011 | 162000 | 97000 | | | |
| 8/7/2011 | 160000 | 99000 | | | |
| 8/8/2011 | 159000 | 98000 | | | |
| 8/9/2011 | 159000 | 99000 | | | |
| 8/10/2011 | 158000 | 99000 | | | |
| 8/11/2011 | 157000 | 96000 | | | |
| 8/12/2011 | 158000 | 95000 | | | |
| 8/13/2011 | 158000 | 94000 | | | |
| 8/14/2011 | 158000 | 93000 | | | |
| 8/15/2011 | 160000 | 95000 | | | |
| 8/16/2011 | 159000 | 91000 | | | |
| 8/17/2011 | 159000 | 89000 | | | |
| 8/18/2011 | 155000 | 89000 | | | |
| 8/19/2011 | 152000 | 87000 | | | |
| 8/20/2011 | 143000 | 80000 | | | |
| 8/21/2011 | 141000 | 76000 | | | |
| 8/22/2011 | 138000 | 74000 | | | |
| 8/23/2011 | 139000 | 73000 | | | |
| 8/24/2011 | 136000 | 72000 | | | |
| 8/25/2011 | 130000 | 68000 | | | |
| 8/26/2011 | 131000 | 67000 | | | |
| 8/27/2011 | 129000 | 64000 | | | |
| 8/28/2011 | 127000 | 63000 | | | |
| 8/29/2011 | 124000 | 61000 | | | |
| 8/30/2011 | 125000 | 60000 | | | |
| 8/31/2011 | 124000 | 58000 | | | |
| 9/1/2011 | 121000 | 59000 | | | |
| 9/2/2011 | 121000 | 58000 | | | |
| 9/3/2011 | 121000 | 57000 | | | |
| 9/4/2011 | 121000 | 61000 | | | |
| 9/5/2011 | 121000 | 71000 | | | |
| 9/6/2011 | 122000 | 66000 | | | |
| 9/7/2011 | 119000 | 64000 | | | |
| 9/8/2011 | 102000 | 57000 | | | |
| 9/9/2011 | 103000 | 55000 | | | |
| 9/10/2011 | 103000 | 53000 | | | |
| 9/11/2011 | 100000 | 51000 | | | |
| 9/12/2011 | 100000 | 50000 | | | |
| 9/13/2011 | 106000 | 52000 | | | |
| 9/14/2011 | 109000 | 53000 | | | |
| 9/15/2011 | 113000 | 53000 | | | |
| 9/16/2011 | 124000 | 56000 | | | |
| 9/17/2011 | 127000 | 59000 | | | |
| 9/18/2011 | 129000 | 59000 | | | |
| 9/19/2011 | 128000 | 60000 | | | |
| 9/20/2011 | 121000 | 57000 | | | |

| Date | OLD RIVER OUTFLOW CHANNEL NR KNOX LANDING | Atchafalaya River at Simmesport, LA | USGS 07381530 Morganza Spillway at Hwy 190 near Lottie, LA | | |
|---|---|---|---|---|---|
| | TSS (tons/day) | TSS (tons/day) | Discharge (cfs) | TSS (< 0.06 mm) | TSS (mg/L) |
| 9/21/2011 | 116000 | 55000 | | | |
| 9/22/2011 | 111000 | 53000 | | | |
| 9/23/2011 | 109000 | 52000 | | | |
| 9/24/2011 | 109000 | 51000 | | | |
| 9/25/2011 | 106000 | 50000 | | | |
| 9/26/2011 | 104000 | 49000 | | | |
| 9/27/2011 | 104000 | 49000 | | | |
| 9/28/2011 | 104000 | 49000 | | | |
| 9/29/2011 | 103000 | 49000 | | | |
| 9/30/2011 | 103000 | 50000 | | | |

# Appendix E
# Water Level and Gaging Results

**Table E1. USACE Gages with Available Daily Data**

| Gage Name | USACE # | Latitude | Longitude |
|---|---|---|---|
| Mississippi River @ Natchez, MS | | 31.5440 | -91.4334 |
| Mississippi River near Knox Landing | 01080 | 31.0736 | -91.5819 |
| Mississippi River at Red River Landing | 01120 | 30.9608 | -91.6644 |
| Mississippi River nr St. Francisville | 01145 | 30.7029 | -91.3442 |
| Mississippi River at Baton Rouge | 01160 | 30.4292 | -91.2069 |
| Atchafalaya River at Krotz Springs | 03075 | 30.5688 | -91.7615 |
| Atchafalaya River at Melville | 03060 | 30.6906 | -91.7361 |
| Bayou Latenache Above Pointe Coupee Drainage Str | 40900 | 30.7288 | -91.7333 |
| Bayou Latenache Below Pointe Coupee Drainage Str | 43500 | 30.7282 | -91.7329 |
| Bayou Courtableau above Drainage Structure | 58400 | 30.5342 | -91.8594 |
| Chicot Pass near Myette Point near Charenton | 03540 | 29.8925 | -91.4456 |
| Keelboat Pass below Lake Chicot | 03615 | 30.0385 | -91.4558 |
| Six Mile Lake NE of Verdunville | 03645 | 29.7659 | -91.3897 |
| Crewboat Channel at Wax Lake Outlet nr Calumet | 03830 | 29.5400 | -91.4356 |
| Bayou Teche at West Calumet Floodgate | 64650 | 29.7040 | -91.3752 |
| GIWW at Bayou Sale Ridge | 76560 | 29.6808 | -91.4706 |
| Bayou Boeuf Lock - East | 76360 | 29.6830 | -91.1711 |
| Bayou Boeuf Lock - West | 76400 | 29.6827 | -91.1806 |
| Wax Lake East Drainage Area at Control Structure | 76480 | 29.6422 | -91.3207 |
| Lake Palourde near Morgan City | 52750 | 29.7194 | -91.1872 |
| Little Alabama Bayou at Sherbourne | 49365 | 30.4964 | -91.7186 |
| Avoca Island Cutoff south of Morgan City | 03820 | 29.5333 | -91.2494 |
| Buffalo Cove at Round Island nr Charenton | 49235 | 29.9833 | -91.5250 |
| Little Bayou Sorrel At Junction with GIWW | 49725 | 29.7954 | -91.1675 |

**Table E2. USACE Mississippi River Gages Readings**

| USACE # | MS-Natchez | 01080 | 01120 | 01145 | 01160 |
|---|---|---|---|---|---|
| 1/1/2011 | 2.53 | 25.19 | 22.82 | | 9.96 |
| 1/2/2011 | 2.04 | 25.93 | 23.56 | | 10.03 |
| 1/3/2011 | 1.92 | 25.33 | 22.95 | | 9.99 |
| 1/4/2011 | 1.99 | 24.91 | 22.52 | | |
| 1/5/2011 | 2.39 | 24.55 | 22.17 | | 9.65 |
| 1/6/2011 | 2.11 | 24.1 | 21.74 | | 9.31 |
| 1/7/2011 | 2.05 | 23.73 | 21.35 | | 8.91 |
| 1/8/2011 | 1.98 | 23.51 | 21.09 | | 8.69 |
| 1/9/2011 | 2.03 | 23.88 | 21.44 | | 8.55 |
| 1/10/2011 | 2.25 | 24.83 | 22.34 | | 9.57 |
| 1/11/2011 | 1.98 | 26.41 | 23.8 | | 10 |
| 1/12/2011 | 1.49 | 28.24 | 25.68 | | 10.87 |
| 1/13/2011 | 1.52 | 29.99 | 27.24 | | 12.08 |
| 1/14/2011 | 1.57 | 31.02 | 28.27 | 17.68 | 13.31 |
| 1/15/2011 | 1.56 | 31.39 | 28.64 | 18.46 | 14.03 |
| 1/16/2011 | 2.1 | 31.33 | 28.72 | 18.82 | 14.43 |
| 1/17/2011 | 2.17 | 31.06 | 28.49 | 18.83 | 14.5 |
| 1/18/2011 | 2.12 | 30.23 | 27.7 | 18.42 | 14.18 |
| 1/19/2011 | 2.08 | 29.9 | 27.39 | 18.04 | 13.93 |
| 1/20/2011 | 2.39 | 29.21 | 26.75 | 17.36 | 13.27 |
| 1/21/2011 | 2 | 28.04 | 25.59 | 16.34 | 12.55 |
| 1/22/2011 | 2.11 | 26.76 | 24.38 | 15.18 | 11.61 |
| 1/23/2011 | 2.26 | 25.93 | 23.6 | 14.3 | 10.72 |
| 1/24/2011 | 2.58 | 25.24 | 22.85 | 13.56 | 10.12 |
| 1/25/2011 | 2.8 | 24.76 | 22.38 | 13.31 | 9.91 |
| 1/26/2011 | 1.83 | 24.85 | 22.44 | 13.15 | |
| 1/27/2011 | 1.83 | 25.11 | 22.68 | 13.19 | 9.62 |
| 1/28/2011 | 1.6 | 25.12 | 22.71 | 13.19 | |
| 1/29/2011 | 1.57 | 24.84 | 22.44 | 13.09 | 9.21 |
| 1/30/2011 | 1.73 | 24.63 | 22.24 | 12.93 | |
| 1/31/2011 | 1.9 | 24.52 | 22.15 | 12.8 | |
| 2/1/2011 | 2.04 | 24.29 | 21.95 | 12.69 | |
| 2/2/2011 | 1.74 | 24.3 | 22.03 | 12.6 | |
| 2/3/2011 | 1.69 | 24.48 | 22.2 | 12.78 | |
| 2/4/2011 | 2.2 | 24.59 | | 12.91 | 9.14 |
| 2/5/2011 | 1.81 | 24.98 | 22.57 | 13.16 | 9.17 |
| 2/6/2011 | 2.49 | 25.54 | 23.19 | 13.47 | 9.33 |
| 2/7/2011 | 2.77 | 25.91 | 23.53 | 13.75 | |
| 2/8/2011 | 2.22 | 25.96 | 23.61 | 13.96 | |
| 2/9/2011 | 1.94 | 26.07 | 23.74 | 13.98 | |
| 2/10/2011 | 1.69 | 26.42 | 24 | 14.17 | 10.1 |
| 2/11/2011 | 1.66 | 27.23 | 24.77 | 14.81 | 10.5 |
| 2/12/2011 | 1.9 | 28.1 | 25.61 | 15.54 | 11.01 |
| 2/13/2011 | 1.69 | 29 | 26.47 | 16.32 | 11.63 |
| 2/14/2011 | 1.8 | 29.77 | 27.19 | 17.1 | 12.47 |
| 2/15/2011 | 1.83 | 29.9 | 27.4 | 17.51 | 12.88 |
| 2/16/2011 | 2.06 | 29.74 | 27.24 | 17.53 | 12.88 |
| 2/17/2011 | 2.09 | 29.25 | 26.78 | 17.18 | 12.56 |

| USACE # | MS-Natchez | 01080 | 01120 | 01145 | 01160 |
|---|---|---|---|---|---|
| 2/18/2011 | 2.49 | 28.63 | 26.24 | 16.66 | 12.22 |
| 2/19/2011 | 2.33 | 28.15 | 25.75 | 16.17 | 11.78 |
| 2/20/2011 | 2.93 | 27.54 | 25.2 | 15.64 | 11.36 |
| 2/21/2011 | 2.94 | 27.1 | 24.76 | 15.21 | 11.02 |
| 2/22/2011 | 2.79 | 26.41 | 24.14 | 14.69 | 10.54 |
| 2/23/2011 | 2.64 | 25.53 | 23.26 | 13.97 | 9.99 |
| 2/24/2011 | 2.42 | 24.92 | 22.62 | 13.3 | 9.46 |
| 2/25/2011 | 2.28 | 24.88 | 22.55 | 13.1 | 9.34 |
| 2/26/2011 | 2.06 | 25.87 | 23.44 | 13.46 | 9.46 |
| 2/27/2011 | 2.26 | 28.06 | 25.39 | 14.77 | 10.4 |
| 2/28/2011 | 2.73 | 30.82 | 27.98 | 17.06 | 12.13 |
| 3/1/2011 | 2.14 | 33.57 | 30.59 | 19.75 | 14.33 |
| 3/2/2011 | 2.71 | 36.07 | 33.26 | 22.45 | 16.54 |
| 3/3/2011 | 2.92 | 37.96 | 35.04 | 24.95 | 18.91 |
| 3/4/2011 | 3.03 | 39.49 | 36.66 | 26.87 | 20.89 |
| 3/5/2011 | 3.42 | 40.89 | 38.43 | 28.56 | 22.63 |
| 3/6/2011 | 3.13 | 42.3 | 39.91 | 30.2 | 24.11 |
| 3/7/2011 | 3.23 | 43.23 | 40.72 | 31.22 | 25.01 |
| 3/8/2011 | 3.65 | 43.89 | 41.33 | 31.9 | 25.69 |
| 3/9/2011 | 3.81 | 45.1 | 42.57 | 33.09 | 26.83 |
| 3/10/2011 | 3.3 | 46.83 | 44.33 | 34.74 | 28.12 |
| 3/11/2011 | 3.36 | 47.43 | 44.98 | 35.32 | 28.77 |
| 3/12/2011 | 3.32 | 47.74 | 45.26 | 35.68 | 29.18 |
| 3/13/2011 | 3.24 | 48.05 | 45.64 | 35.91 | 29.48 |
| 3/14/2011 | 3.26 | 48.4 | 45.95 | 36.37 | 29.84 |
| 3/15/2011 | 3.37 | 48.76 | 46.31 | 36.79 | 30.31 |
| 3/16/2011 | 3.38 | 49.18 | 46.81 | 37.19 | 30.65 |
| 3/17/2011 | 3.8 | 49.53 | 47.14 | 37.55 | 30.97 |
| 3/18/2011 | 3.9 |  | 47.54 | 37.86 | 31.25 |
| 3/19/2011 | 3.67 | 50.2 | 47.89 | 38.21 | 31.47 |
| 3/20/2011 | 3.81 | 50.67 | 48.21 | 38.5 | 31.85 |
| 3/21/2011 | 4.07 |  | 48.57 | 38.9 | 32.11 |
| 3/22/2011 | 4.11 | 51.27 | 48.9 | 39.21 | 32.41 |
| 3/23/2011 | 4.18 | 51.33 | 49.17 | 39.48 | 32.68 |
| 3/24/2011 | 4.02 | 52.04 | 49.47 | 39.8 | 32.95 |
| 3/25/2011 | 3.93 |  |  |  | 33.17 |
| 3/26/2011 | 4.01 | 52.29 | 50.05 | 40.39 | 33.3 |
| 3/27/2011 | 4.01 | 52.53 | 50.26 | 40.64 | 33.52 |
| 3/28/2011 | 4 | 52.92 | 50.53 | 40.91 | 33.79 |
| 3/29/2011 | 3.99 | 53.17 | 50.87 | 41.12 | 34.05 |
| 3/30/2011 | 4.15 | 53.56 | 51.24 | 41.58 | 34.47 |
| 3/31/2011 | 4.03 | 54.07 | 51.51 | 41.85 | 34.78 |
| 4/1/2011 | 4.15 | 54.14 | 51.9 | 42.03 | 34.89 |
| 4/2/2011 | 4.12 | 53.87 | 51.93 | 42.18 | 35.08 |
| 4/3/2011 | 4.3 | 53.87 | 52.15 | 42.24 | 35.02 |
| 4/4/2011 | 4.74 | 53.94 | 51.75 | 42.04 | 34.92 |
| 4/5/2011 | 4.05 | 54.03 | 51.42 | 41.92 | 34.81 |
| 4/6/2011 | 4.49 | 53.63 | 51.29 | 41.76 | 34.56 |
| 4/7/2011 | 4.26 | 53.82 | 51.05 | 41.48 | 34.31 |
| 4/8/2011 | 4.36 | 53.02 | 50.64 | 41.13 | 34.06 |

| USACE # | MS-Natchez | 01080 | 01120 | 01145 | 01160 |
|---|---|---|---|---|---|
| 4/9/2011 | 4.56 | 52.7 | 50.29 | 40.68 | 33.76 |
| 4/10/2011 | 4.37 | 51.99 | 49.68 | 40.19 | 33.19 |
| 4/11/2011 | 4.45 | 51.2 | 48.87 | 39.38 | 32.49 |
| 4/12/2011 | 3.98 | 50.36 | 47.97 | 38.55 | 31.81 |
| 4/13/2011 | 3.98 | 49.62 | 47.21 | 37.65 | 31.01 |
| 4/14/2011 | 4.05 | 48.97 | 46.55 | 36.88 | 30.35 |
| 4/15/2011 | 4.23 | 48.34 | 46 | 36.32 | 29.89 |
| 4/16/2011 | 3.98 | 47.85 | 45.48 | 35.88 | 29.53 |
| 4/17/2011 | 4.12 | 47.57 | 45.28 | 35.5 | 29.14 |
| 4/18/2011 | 4.5 | 47.45 | 45.06 | 35.37 | 28.98 |
| 4/19/2011 | 4.51 | 47.61 | 45.14 | 35.42 | 28.98 |
| 4/20/2011 | 4.5 | 47.65 | 45.22 | 35.41 | 29.08 |
| 4/21/2011 | 4.08 | 47.74 | 45.36 | 35.61 | 29.16 |
| 4/22/2011 | 4.23 | 47.94 | 45.58 | 35.76 | 29.23 |
| 4/23/2011 | 4.12 | 48.24 | 45.86 | 36.02 | 29.63 |
| 4/24/2011 | 3.96 | 49.33 | 46.23 | 36.31 | 29.78 |
| 4/25/2011 | 4.19 | 49.73 | 46.5 | 36.66 | 30.05 |
| 4/26/2011 | 4.32 | 49.76 | 47.11 | 37.22 | 30.55 |
| 4/27/2011 | 4.89 | 50.22 | 47.66 | 37.75 | 31.08 |
| 4/28/2011 | 4.07 | 50.7 | 48.13 | 38.27 | |
| 4/29/2011 | 4.26 | 51.29 | 48.7 | 38.69 | 31.87 |
| 4/30/2011 | 4.78 | 52.13 | 49.51 | 39.36 | 32.43 |
| 5/1/2011 | 4.56 | 53.08 | 50.52 | 40.31 | 33.08 |
| 5/2/2011 | 4.51 | 54.11 | 51.4 | 41.17 | 34 |
| 5/3/2011 | 4.42 | 55.23 | 52.31 | 42.16 | 34.83 |
| 5/4/2011 | 3.93 | 56.06 | 53.41 | 43.08 | 35.84 |
| 5/5/2011 | 4.26 | 56.99 | 53.94 | 44.11 | 36.78 |
| 5/6/2011 | 4.34 | 57.74 | 57.18 | 45.07 | 37.61 |
| 5/7/2011 | 4.51 | 58.62 | 55.87 | 45.96 | 38.39 |
| 5/8/2011 | 4.47 | 59.86 | 57.08 | 47.23 | 39.52 |
| 5/9/2011 | 4.5 | 60.97 | 58.05 | 48.4 | 40.74 |
| 5/10/2011 | 4.59 | 61.94 | 59.27 | 49.56 | 41.75 |
| 5/11/2011 | 4.72 | 62.76 | 60.04 | 50.44 | 42.39 |
| 5/12/2011 | 4.87 | 63.58 | 60.76 | 51.23 | 43.13 |
| 5/13/2011 | 5.4 | 64.13 | 61.44 | 51.83 | 43.57 |
| 5/14/2011 | 4.99 | 64.61 | 61.86 | 52.36 | 43.98 |
| 5/15/2011 | 5.13 | 65.12 | 62.27 | 52.76 | 44.3 |
| 5/16/2011 | 5.28 | 65.55 | 62.27 | 53.03 | 44.48 |
| 5/17/2011 | 5.46 | 65.86 | 62.76 | 53.13 | 44.59 |
| 5/18/2011 | 5.76 | 66.2 | 63.04 | 53.32 | 44.84 |
| 5/19/2011 | 5.88 | 65.95 | 62.87 | 53.27 | 44.96 |
| 5/20/2011 | 5.88 | 65.9 | 62.89 | 53.21 | 44.67 |
| 5/21/2011 | 5.92 | 65.77 | 62.95 | 53.21 | 44.56 |
| 5/22/2011 | 6.06 | 65.69 | 62.57 | 53.08 | 44.51 |
| 5/23/2011 | 6.22 | 65.45 | 62.39 | 52.91 | 44.33 |
| 5/24/2011 | 6.43 | 65.33 | 62.3 | 52.67 | 44.19 |
| 5/25/2011 | 6.69 | 65.04 | 62.07 | 52.6 | 43.99 |
| 5/26/2011 | 6.87 | 64.96 | 62.09 | 52.45 | 43.78 |
| 5/27/2011 | 6.91 | 64.94 | 62.08 | 52.51 | 43.93 |
| 5/28/2011 | 7.03 | 64.87 | 61.83 | 52.45 | 43.83 |

| USACE # | MS-Natchez | 01080 | 01120 | 01145 | 01160 |
|---|---|---|---|---|---|
| 5/29/2011 | 7.16 | 64.7 | 61.72 | 52.26 | 43.59 |
| 5/30/2011 | 7.08 | 64.5 | 61.53 | 52.15 | 43.61 |
| 5/31/2011 | 7.05 | 64.38 | 61.45 | 52.02 | 43.59 |
| 6/1/2011 | 6.97 | 64.2 | 61.22 | 51.82 | 43.32 |
| 6/2/2011 | 6.85 | 63.86 | 60.94 | 51.62 | 43.17 |
| 6/3/2011 | 6.83 | 63.5 | 60.69 | 51.24 | 42.89 |
| 6/4/2011 | | 63.03 | 60.19 | 50.77 | 42.49 |
| 6/5/2011 | | 62.54 | 59.82 | 50.3 | 41.99 |
| 6/6/2011 | | 61.94 | 59.2 | 49.74 | 41.43 |
| 6/7/2011 | 6.39 | 61.53 | 58.76 | 49.14 | 40.91 |
| 6/8/2011 | 6.3 | 61.1 | 58.29 | 48.71 | 40.5 |
| 6/9/2011 | 6 | 60.77 | 58.02 | 48.34 | 40.21 |
| 6/10/2011 | 5.96 | 60.46 | 57.69 | 48.01 | 39.88 |
| 6/11/2011 | 5.9 | 60.09 | 57.26 | 47.61 | 39.53 |
| 6/12/2011 | 5.78 | 59.69 | 56.85 | 47.2 | 39.23 |
| 6/13/2011 | 5.71 | 59.3 | 56.44 | 46.73 | 38.83 |
| 6/14/2011 | 5.61 | 58.92 | 55.94 | 46.32 | 38.44 |
| 6/15/2011 | 5.57 | 57.84 | 55.13 | 45.63 | 37.9 |
| 6/16/2011 | 5.32 | 57.61 | 54.92 | 44.98 | 37.32 |
| 6/17/2011 | 5.29 | 56.99 | 54.41 | 44.48 | 36.92 |
| 6/18/2011 | 5.29 | 56.24 | 53.69 | 43.87 | 36.43 |
| 6/19/2011 | 5.15 | 55.47 | 52.94 | 43.09 | 35.78 |
| 6/20/2011 | 5.22 | 54.77 | 52.22 | 42.41 | 35.16 |
| 6/21/2011 | 5.29 | 54.07 | 51.49 | 41.73 | 34.54 |
| 6/22/2011 | 5.15 | 53.34 | 50.82 | 41.2 | 34.03 |
| 6/23/2011 | 5.01 | 52.44 | 50.11 | 40.42 | 33.34 |
| 6/24/2011 | 4.94 | 51.71 | 49.2 | 39.58 | 32.64 |
| 6/25/2011 | 4.89 | 50.9 | | 38.72 | 31.91 |
| 6/26/2011 | 4.81 | 50.06 | | 37.84 | 31.17 |
| 6/27/2011 | 4.8 | 49.34 | | 37.14 | 30.5 |
| 6/28/2011 | 4.68 | 48.88 | | 36.61 | 29.99 |
| 6/29/2011 | 4.58 | 48.57 | 45.91 | 36.2 | 29.68 |
| 6/30/2011 | 4.58 | 48.43 | 45.7 | 35.97 | 29.46 |
| 7/1/2011 | 4.44 | 48.17 | 45.48 | 35.78 | 29.25 |
| 7/2/2011 | 4.27 | 48.05 | 45.4 | 35.58 | 29.1 |
| 7/3/2011 | 4.21 | 47.85 | 45.17 | 35.47 | 28.94 |
| 7/4/2011 | 4.27 | 47.71 | 45.09 | 35.27 | 28.82 |
| 7/5/2011 | 4.25 | 47.78 | 45.1 | 35.24 | 28.76 |
| 7/6/2011 | 4.16 | 47.98 | 45.3 | 35.44 | 28.91 |
| 7/7/2011 | 4.13 | 48.02 | 45.35 | 35.51 | 28.95 |
| 7/8/2011 | 4.13 | 47.95 | 45.3 | 35.5 | 28.93 |
| 7/9/2011 | 4.19 | 48.06 | 45.31 | 35.47 | 28.97 |
| 7/10/2011 | 4.21 | 47.99 | 45.31 | 35.52 | 29.02 |
| 7/11/2011 | 4.23 | 47.93 | 45.29 | 35.48 | 28.94 |
| 7/12/2011 | 4.19 | 47.9 | 45.22 | 35.41 | 28.81 |
| 7/13/2011 | 4.28 | 47.89 | 45.14 | 35.36 | 28.83 |
| 7/14/2011 | 4.07 | 47.56 | 44.85 | 35.13 | 28.69 |
| 7/15/2011 | 4.2 | 47.23 | 44.58 | 34.92 | 28.46 |
| 7/16/2011 | 4.14 | 46.97 | 44.28 | 34.55 | 28.22 |
| 7/17/2011 | 3.94 | 46.63 | 43.95 | 34.25 | 27.9 |

| USACE # | MS-Natchez | 01080 | 01120 | 01145 | 01160 |
|---|---|---|---|---|---|
| 7/18/2011 | 3.97 | 46.25 | 43.56 | 33.95 | 27.54 |
| 7/19/2011 | 3.98 | 46.21 | 43.41 | 33.75 | 27.39 |
| 7/20/2011 | 3.92 | 45.44 | 42.87 | 33.17 | 27.07 |
| 7/21/2011 | 3.81 | 44.68 | 42.17 | 32.62 | 26.44 |
| 7/22/2011 | 3.86 | 44.21 | 41.71 | 32.07 | 25.91 |
| 7/23/2011 | 3.98 | 43.23 | 40.91 | 31.36 | 25.29 |
| 7/24/2011 | 3.84 | 42.42 | 40.02 | 30.49 | 24.51 |
| 7/25/2011 | 3.97 | 41.45 | 39 | 29.5 | 23.59 |
| 7/26/2011 | 3.85 | 40.83 | 38.33 | 28.73 | 22.64 |
| 7/27/2011 | 3.85 | 40.81 | 38.21 | 28.44 | 22.47 |
| 7/28/2011 | 3.92 | 40.14 | 37.67 | 27.93 | 21.98 |
| 7/29/2011 | 3.98 | 39.45 | 37.32 | 27.27 | 21.28 |
| 7/30/2011 | | | | | |
| 7/31/2011 | | | | | |
| 8/1/2011 | 3.73 | 36.84 | 34.35 | 24.47 | 18.85 |
| 8/2/2011 | 3.57 | 36.46 | 33.97 | 24.05 | 18.3 |
| 8/3/2011 | 3.46 | 36.2 | 33.67 | 23.62 | 17.85 |
| 8/4/2011 | 3.42 | 35.99 | 33.58 | 23.48 | 17.6 |
| 8/5/2011 | 3.34 | 36.11 | 33.56 | 23.38 | |
| 8/6/2011 | 3.49 | 35.78 | 33.25 | 23.18 | |
| 8/7/2011 | 3.4 | 35.62 | 33.09 | 23 | |
| 8/8/2011 | 3.66 | 35.38 | 32.86 | 22.72 | |
| 8/9/2011 | 3.57 | 35.11 | 32.62 | 22.5 | |
| 8/10/2011 | 3.47 | 35.03 | 32.42 | 22.29 | 16.62 |
| 8/11/2011 | 3.4 | 35.02 | 32.55 | 22.3 | 16.59 |
| 8/12/2011 | 3.24 | 34.95 | 32.49 | 22.19 | 16.49 |
| 8/13/2011 | | | | | |
| 8/14/2011 | 2.92 | 35.24 | 32.7 | 22.39 | 16.64 |
| 8/15/2011 | 2.71 | 35.3 | 32.67 | 22.51 | 16.8 |
| 8/16/2011 | 2.71 | 35.31 | 32.66 | 22.6 | 16.9 |
| 8/17/2011 | 2.64 | 35.15 | 32.66 | 22.55 | 16.85 |
| 8/18/2011 | 2.81 | 34.76 | 32.3 | 22.24 | 16.6 |
| 8/19/2011 | 3.13 | 34.3 | 31.88 | 21.87 | 16.5 |
| 8/20/2011 | 3.06 | 34 | 31.56 | 21.51 | 16.18 |
| 8/21/2011 | 2.91 | 33.54 | 31.06 | 21.06 | 15.74 |
| 8/22/2011 | 2.94 | 33.1 | 30.67 | 20.61 | 15.27 |
| 8/23/2011 | 3.03 | 32.58 | 30.16 | 20.12 | 14.92 |
| 8/24/2011 | 3.12 | 32.23 | 29.79 | 19.67 | 14.48 |
| 8/25/2011 | 3.18 | 32.13 | 29.67 | 19.46 | 14.27 |
| 8/26/2011 | 3.16 | 31.98 | 29.52 | 19.35 | 14.24 |
| 8/27/2011 | 3 | 31.77 | 29.35 | 19.19 | 14 |
| 8/28/2011 | 2.57 | 31.51 | 29.07 | 18.97 | 13.89 |
| 8/29/2011 | 2.72 | 31.28 | 28.82 | 18.71 | 13.68 |
| 8/30/2011 | 2.93 | 30.86 | 28.41 | 18.37 | 13.43 |
| 8/31/2011 | 2.99 | 30.52 | 28.06 | 18.03 | 13.02 |
| 9/1/2011 | 2.94 | 30.26 | 27.81 | 17.68 | 12.85 |
| 9/2/2011 | 3.54 | 30.16 | 27.66 | 17.67 | 13.09 |
| 9/3/2011 | 4.49 | 30.23 | 27.84 | 18.08 | 14.05 |
| 9/4/2011 | 6.2 | 30.46 | 28.06 | 18.54 | 14.46 |
| 9/5/2011 | 3.98 | 31.07 | 28.72 | 19.74 | 15.38 |

| USACE # | MS-Natchez | 01080 | 01120 | 01145 | 01160 |
|---|---|---|---|---|---|
| 9/6/2011 | 3.47 | 31.56 | 29.12 | 19.19 | 14.75 |
| 9/7/2011 | 3.42 | 30.68 | 28.32 | 18.61 | 14.13 |
| 9/8/2011 | 3.25 | 30.4 | 28 | 18.08 | 13.69 |
| 9/9/2011 | 2.96 | 29.65 | 27.26 | 17.45 | 13.15 |
| 9/10/2011 | 3.09 | 28.91 | 26.5 | 16.75 | 12.52 |
| 9/11/2011 | 2.93 | 28.4 | 26 | 16.2 | 12.02 |
| 9/12/2011 | 2.77 | 28.12 | 25.67 | 15.84 | 11.7 |
| 9/13/2011 | 2.81 | 27.91 | 25.45 | 15.52 | 11.46 |
| 9/14/2011 | 2.76 | 28.17 | 25.66 | 15.62 | 11.39 |
| 9/15/2011 | 2.61 | 28.75 | 26.16 | 15.96 | 11.69 |
| 9/16/2011 | 2.7 | 28.89 | 26.39 | 16.3 | 11.92 |
| 9/17/2011 | 2.92 | 29.22 | 26.73 | 16.62 | 12.23 |
| 9/18/2011 | 3.18 | 29.41 | 26.9 | 16.88 | 12.47 |
| 9/19/2011 | 3.12 | 29.31 | 26.9 | 16.94 | 12.66 |
| 9/20/2011 | 2.96 | 29.18 | 26.77 | 16.86 | 12.56 |
| 9/21/2011 | 2.93 | 28.85 | 26.37 | 16.6 | 12.43 |
| 9/22/2011 | 3.17 | 28.45 | 26.02 | 16.25 | 12.12 |
| 9/23/2011 | 3.06 | 28.03 | 25.56 | 15.85 | 11.86 |
| 9/24/2011 | 3.07 | 27.32 | 24.9 | 15.39 | 11.71 |
| 9/25/2011 | 3.01 | 26.75 | 24.33 | 14.81 | 11.12 |
| 9/26/2011 | 3.43 | 26.33 | 23.89 | 14.42 | 10.67 |
| 9/27/2011 | 3.13 | 26.02 | 23.43 | 14.08 | 10.44 |
| 9/28/2011 | 3.04 | 25.78 | 23.22 | 13.8 | 10.33 |
| 9/29/2011 | 3.48 | 25.72 | 23.08 | 13.74 | 10.11 |
| 9/30/2011 | 2.78 | 25.68 | 23.46 | 13.54 | 10.03 |
| 10/1/2011 | 2.45 | 25.75 | 23.52 | 13.54 | 9.95 |
| 10/2/2011 | 2.59 | 26.03 | 24.1 | 13.79 | 10.2 |
| 10/3/2011 | 2.68 | 26.54 | 23.89 | 14.11 | 10.32 |
| 10/4/2011 | 2.66 | 26.89 |  | 14.39 | 10.55 |
| 10/5/2011 | 2.84 | 27.06 | 24.39 | 14.7 | 10.69 |
| 10/6/2011 | 2.96 | 27.17 | 24.43 | 14.88 | 10.87 |
| 10/7/2011 | 2.99 | 27.15 | 24.49 | 15 | 11.21 |
| 10/8/2011 |  |  |  |  |  |
| 10/9/2011 |  |  |  |  |  |
| 10/10/2011 | 2.98 | 26.3 | 23.75 | 14.77 | 11.34 |
| 10/11/2011 | 2.85 | 25.92 | 23.4 | 14.34 | 10.82 |
| 10/12/2011 | 2.83 | 25.65 | 23.09 | 13.89 | 10.49 |
| 10/13/2011 | 2.94 | 25.37 | 22.81 | 13.6 | 10.2 |
| 10/14/2011 | 2.73 | 25.16 | 22.59 | 13.35 | 9.95 |
| 10/15/2011 | 2.74 | 24.68 | 22.11 | 13.04 | 9.84 |
| 10/16/2011 | 2.9 | 24.16 | 21.64 | 12.66 | 9.52 |
| 10/17/2011 | 3.06 | 23.62 | 21.07 | 12.18 | 9.19 |
| 10/18/2011 | 3.61 | 23.08 | 20.58 | 11.84 | 9.04 |
| 10/19/2011 | 2.78 | 22.57 | 20.06 | 11.25 | 8.62 |
| 10/20/2011 | 2.43 | 22.04 | 19.53 | 10.94 | 8.17 |
| 10/21/2011 | 2.29 | 21.58 | 19.04 | 10.71 | 7.56 |
| 10/22/2011 | 2.1 | 21.21 | 18.64 | 10.31 | 7.03 |
| 10/23/2011 | 2.47 | 21.11 | 18.54 | 9.83 | 7.31 |
| 10/24/2011 | 2.28 | 21.4 | 18.72 | 9.99 | 7.47 |
| 10/25/2011 | 1.92 | 21.67 | 19.02 | 10.1 | 6.76 |

| USACE # | MS-Natchez | 01080 | 01120 | 01145 | 01160 |
|---|---|---|---|---|---|
| 10/26/2011 | 2.17 | 21.9 | 19.24 | 10.38 | 6.96 |
| 10/27/2011 | 2.47 | 22.05 | 19.42 | 10.65 | 7.26 |
| 10/28/2011 | 2.77 | 22.38 | 19.75 | 10.87 | 7.53 |
| 10/29/2011 | 1.91 | 22.84 | 20.18 | 11.06 | 7.67 |
| 10/30/2011 | 2.7 | 23.41 | 20.72 | 11.54 | 8.07 |
| 10/31/2011 | 2.56 | 23.97 | 21.29 | 12.05 | 8.26 |
| 11/1/2011 | 2.61 | 24.28 | 21.67 | 12.33 | 8.34 |
| 11/2/2011 | 2.83 | 24.4 | 21.82 | 12.58 | 8.63 |
| 11/3/2011 | 2.77 | 24.51 | 21.85 | 12.58 | 8.57 |
| 11/4/2011 | 1.83 | 24.48 | 21.86 | 12.76 | 8.68 |
| 11/5/2011 | 2.16 | 24.4 | 21.77 | 12.69 | 8.74 |
| 11/6/2011 | 2.44 | 24.36 | 21.78 | 12.7 | 8.76 |
| 11/7/2011 | 2.31 | 24.5 | 21.88 | 12.85 | 9.03 |
| 11/8/2011 | 2.63 | 24.65 | 22.03 | 12.99 | 9.22 |
| 11/9/2011 | 2.53 | 24.85 | 22.18 | 13.07 | |
| 11/10/2011 | 1.77 | 24.93 | 22.28 | 13.09 | 9.43 |
| 11/11/2011 | 2.09 | 25.03 | 22.4 | 13.34 | 9.18 |
| 11/12/2011 | 2.36 | 25.5 | 22.85 | 13.52 | 9.25 |
| 11/13/2011 | 2.61 | 25.63 | 22.99 | 13.76 | 9.48 |
| 11/14/2011 | 2.77 | 25.19 | 22.62 | 13.69 | 9.35 |
| 11/15/2011 | 2.97 | 24.5 | 21.95 | 13.25 | 9.4 |
| 11/16/2011 | 3.22 | 23.97 | 21.47 | 12.88 | |
| 11/17/2011 | 2.27 | 23.83 | 21.23 | 12.74 | |
| 11/18/2011 | 2.45 | 23.61 | 20.93 | 12.39 | 8.51 |
| 11/19/2011 | 2.71 | 23.74 | 21.01 | 12.32 | 8.35 |
| 11/20/2011 | 2.61 | 24.05 | 21.31 | 12.54 | 8.44 |
| 11/21/2011 | 2.44 | 24.68 | 21.89 | 12.95 | 8.74 |
| 11/22/2011 | | 25.52 | 22.72 | 13.62 | |
| 11/23/2011 | 2.22 | 26.51 | 23.67 | 14.48 | |
| 11/24/2011 | 2.19 | 28.12 | 25.15 | 15.48 | 10.73 |
| 11/25/2011 | 2.49 | 30.63 | 27.54 | 17.41 | 11.94 |
| 11/26/2011 | 3.15 | 33.24 | 30.04 | 19.75 | 14.06 |
| 11/27/2011 | 2.96 | 35.28 | 32.42 | 22.13 | 16.28 |
| 11/28/2011 | 2.76 | 36.79 | 33.39 | 23.71 | 17.85 |
| 11/29/2011 | 2.73 | 37.87 | 34.52 | 24.99 | 19.06 |
| 11/30/2011 | 2.66 | 38.75 | 35.53 | 26.06 | 20.04 |
| 12/1/2011 | 2.77 | 39.44 | 36.72 | 26.94 | 20.92 |
| 12/2/2011 | 2.76 | 39.79 | 37.02 | 27.56 | 21.55 |
| 12/3/2011 | 3.01 | 40.22 | 37.45 | 27.92 | 22.03 |
| 12/4/2011 | 3.08 | 40.8 | 38.01 | 28.54 | 22.63 |
| 12/5/2011 | | 41.36 | 38.53 | 29.27 | 23.39 |
| 12/6/2011 | 3.06 | 42.44 | 39.9 | 30.27 | 24.39 |
| 12/7/2011 | 2.91 | 43.42 | 40.43 | 31.32 | 25.31 |
| 12/8/2011 | 2.75 | 44.38 | 41.59 | 32.31 | 26.21 |
| 12/9/2011 | 2.88 | 45.46 | 42.63 | 33.44 | |
| 12/10/2011 | 2.85 | 46.23 | 43.49 | 34.26 | 27.99 |
| 12/11/2011 | 2.95 | 46.97 | 44.33 | 35.05 | 28.79 |
| 12/12/2011 | 3.1 | 47.57 | 44.96 | 35.64 | 29.36 |
| 12/13/2011 | 3.28 | 48.04 | 45.42 | 36.16 | 3.28 |
| 12/14/2011 | | 48.32 | 45.82 | 36.42 | 29.7 |

| USACE # | MS-Natchez | 01080 | 01120 | 01145 | 01160 |
|---|---|---|---|---|---|
| 12/15/2011 | | 48.44 | 45.94 | 36.62 | 29.7 |
| 12/16/2011 | | 48.76 | 46.3 | 36.92 | 30.19 |
| 12/17/2011 | | 49.03 | 46.5 | 37.2 | 30.46 |
| 12/18/2011 | | 49.26 | 46.74 | 37.43 | 30.63 |
| 12/19/2011 | | 49.5 | 46.98 | 37.64 | 30.88 |
| 12/20/2011 | | 49.72 | 47.14 | 37.79 | 30.99 |
| 12/21/2011 | | 50.01 | 47.34 | 38.14 | 31.34 |
| 12/22/2011 | 3.71 | 50.16 | 47.45 | 38.23 | 31.44 |
| 12/23/2011 | 3.75 | 50.4 | 47.7 | 38.45 | 31.68 |
| 12/24/2011 | 3.72 | 50.71 | 47.93 | 38.6 | 31.76 |
| 12/25/2011 | 3.78 | 50.82 | 48.06 | 38.72 | 31.94 |
| 12/26/2011 | 3.97 | 51.16 | 48.48 | 39.02 | 32.16 |
| 12/27/2011 | 4.01 | 51.36 | 48.69 | 39.4 | 32.42 |
| 12/28/2011 | 3.86 | 51.15 | 48.5 | 39.2 | 32.35 |
| 12/29/2011 | 4.04 | 50.66 | 48.06 | 38.86 | 32 |
| 12/30/2011 | 3.97 | 50.33 | 47.67 | 38.5 | 31.66 |
| 12/31/2011 | 3.91 | 49.94 | 47.31 | 38.18 | 31.4 |

## Table E3. USACE Atchafalaya Basin Gages Readings

| USACE # | 03075 | 03060 | 40900 | 43500 | 58400 | 03540 | 03615 | 03645 | 03830 | 64650 | 76560 | 76360 | 76400 | 76480 | 52750 | 49365 | 03820 | 49235 | 49725 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/1/2011 | 6.02 | 6.81 | 21.02 | 20.84 | 16.79 | 2.77 | 3.02 | 1.4 | 0.47 | 2.05 | 1.53 | 2.05 | 2.54 | | 3.31 | | 2.53 | 4 | |
| 1/2/2011 | 5.2 | 6.19 | 19.74 | 19.59 | 16.23 | 2.11 | 2.94 | 0.68 | -0.15 | 1.29 | 0.58 | 1.49 | 1.92 | | 3.09 | | 2.04 | 3.47 | |
| 1/3/2011 | 4.96 | 5.76 | 18.66 | 18.55 | 15.77 | 1.84 | 2.68 | 0.5 | -0.15 | 1.24 | 0.7 | 1.07 | 1.61 | | 2.95 | | 1.92 | 3.11 | |
| 1/4/2011 | 5.1 | 5.99 | 17.87 | 17.78 | 15.69 | 2.21 | 2.56 | 0.92 | 0.24 | 1.71 | 1.19 | 1.52 | 2.01 | | 3.01 | | 1.99 | 3.35 | |
| 1/5/2011 | 4.98 | 5.78 | 18.09 | 17.96 | 16.88 | 2.17 | 2.53 | 1.05 | 0.46 | 1.9 | 1.46 | 1.68 | 2.2 | | 3.02 | | 2.39 | 3.29 | |
| 1/6/2011 | 4.63 | 5.47 | 19.31 | 19.07 | 16.45 | 1.88 | 2.47 | 0.67 | 0.1 | 1.46 | 0.91 | 1.51 | 1.93 | | 2.97 | | 2.11 | 3.1 | |
| 1/7/2011 | | 5.08 | 18.54 | 18.38 | 16.35 | 1.61 | 2.3 | 0.49 | 0.09 | 1.39 | 0.89 | 1.17 | 1.77 | | 2.87 | | 2.05 | 2.8 | |
| 1/8/2011 | | 5.23 | 17.86 | 17.74 | 16.34 | 1.65 | 2.13 | 0.51 | 0.09 | 1.4 | 0.91 | 1.3 | 1.81 | | 2.87 | | 1.98 | 2.82 | |
| 1/9/2011 | 4.28 | 5.14 | 17.29 | 17.17 | 16.16 | 1.49 | 2.02 | 0.47 | 0.22 | 1.35 | 0.88 | 1.01 | 1.59 | | 2.83 | | 2.03 | 2.73 | |
| 1/10/2011 | 4.73 | 5.54 | 17.76 | 17.5 | | 1.73 | 2.08 | 0.72 | 0.46 | 1.7 | 1.12 | 1.26 | 1.84 | | 2.83 | | 2.25 | 2.96 | |
| 1/11/2011 | 4.99 | 5.82 | 17.95 | 17.69 | 17.11 | 1.73 | 1.95 | 0.53 | 0.09 | 1.35 | 0.69 | 1.07 | 1.59 | | 2.83 | | 1.98 | 2.97 | |
| 1/12/2011 | 5.7 | 6.83 | 17.42 | 17.22 | 17.12 | 1.7 | 1.82 | 0.17 | -0.45 | 0.85 | -0.2 | 0.65 | 1.17 | | 1.97 | | 1.49 | 3.05 | |
| 1/13/2011 | 6.15 | 7.23 | 16.86 | 16.71 | 16.95 | 1.92 | 1.82 | 0.33 | -0.44 | 0.93 | 0.04 | 0.41 | 1.11 | | 1.9 | | 1.52 | 3.31 | |
| 1/14/2011 | 6.62 | 7.78 | 16.37 | 16.24 | 16.66 | 2.19 | 1.98 | 0.53 | -0.3 | 1.08 | 0.28 | 0.63 | 1.26 | | 1.87 | | 1.57 | 3.57 | |
| 1/15/2011 | 7.52 | 8.79 | 15.96 | 15.83 | 16.3 | 2.71 | 2.25 | 0.95 | -0.05 | 1.46 | 0.6 | 0.9 | 1.57 | | 1.96 | | 1.56 | 4.05 | |
| 1/16/2011 | 8.2 | 9.49 | 15.62 | 15.48 | 16.44 | 3.12 | 2.59 | 1.31 | 0.11 | 1.76 | 0.86 | 0.84 | 1.98 | | 2.04 | | 2.1 | 4.44 | |
| 1/17/2011 | 8.24 | 9.47 | 15.5 | 15.33 | 16.61 | 3.33 | 2.86 | 1.59 | 0.4 | 2.09 | 1.29 | 1.61 | 2.22 | | 2.17 | | 2.17 | 4.62 | |
| 1/18/2011 | 8.34 | 9.6 | 16.15 | 15.79 | 16.77 | 3.41 | 2.99 | 1.64 | 0.38 | 2.14 | 1.34 | 1.83 | 2.37 | | 2.26 | | 2.12 | 4.69 | |
| 1/19/2011 | 7.35 | 8.38 | 19.54 | 18.94 | 17.32 | 3.05 | 3.05 | 1.38 | 0.2 | 1.82 | 1.1 | 1.74 | 2.28 | | 2.24 | | 2.08 | 4.52 | |
| 1/20/2011 | 6.4 | 7.15 | 19.45 | 19.12 | 16.9 | 2.83 | 3.04 | 1.4 | 0.48 | 2.07 | 1.47 | 1.98 | | | 2.32 | | 2.39 | 4.19 | |
| 1/21/2011 | 5.65 | 6.26 | 18.46 | 18.24 | 16.35 | 2.11 | 2.89 | 0.67 | -0.11 | 1.33 | 0.47 | 1.21 | 1.81 | | 2.17 | | 2 | 3.66 | |
| 1/22/2011 | 5.25 | 5.95 | 17.66 | 17.5 | 16.36 | 2.11 | 2.65 | 0.95 | 0.41 | 1.8 | 1.29 | 1.54 | 2.14 | | 2.12 | | 2.11 | 3.38 | |
| 1/23/2011 | 4.75 | 5.47 | 17.02 | 16.87 | 16.68 | 1.86 | 2.4 | 0.8 | 0.5 | 1.74 | 1.33 | 1.45 | 2.01 | | 2.11 | | 2.26 | 3.09 | |
| 1/24/2011 | 4.74 | 5.48 | 16.45 | 16.32 | 16.41 | 1.76 | 2.23 | 0.89 | 0.84 | 1.94 | 1.53 | 1.4 | 1.96 | | 2.04 | | 2.58 | 2.98 | |
| 1/25/2011 | 5.09 | 5.74 | 17.59 | 17.58 | 16.42 | 1.95 | 2.44 | 1.04 | 1.27 | 2.14 | 1.68 | 1.33 | 2.17 | | 2.17 | | 2.8 | 3.23 | |
| 1/26/2011 | 5.37 | 6.18 | 20.99 | 20.81 | 17.25 | 1.74 | 2.43 | 0.33 | -0.13 | 1.12 | 0.33 | 0.93 | 1.46 | | 2.04 | | 1.83 | 3.15 | |
| 1/27/2011 | 4.94 | 5.57 | 20.09 | 20.08 | 16.59 | 1.64 | 2.28 | 0.22 | 0.07 | 1.05 | 0.27 | 0.95 | 1.41 | | 2.01 | | 1.83 | 3.04 | |
| 1/28/2011 | | 5.09 | 19.01 | 19.08 | 16.68 | 1.44 | 2.13 | 0.07 | -0.36 | 0.88 | 0.26 | 0.85 | 1.3 | | 2.01 | | 1.6 | 2.78 | |
| 1/29/2011 | | 4.84 | 18.21 | 18.32 | 16.58 | 1.32 | 2 | -0.04 | -0.52 | 0.75 | 0.17 | 0.76 | 1.2 | | 2 | | 1.57 | 2.63 | |
| 1/30/2011 | | 4.86 | 17.61 | 17.73 | 16.19 | 1.48 | 1.95 | 0.17 | -0.3 | 0.97 | 0.43 | 1.01 | 1.45 | | 2.01 | | 1.73 | 2.7 | |
| 1/31/2011 | | 4.65 | 17.82 | 17.9 | 16.15 | 1.54 | 2.09 | 0.3 | -0.14 | 1.15 | 0.71 | 1.13 | 1.58 | | 2.1 | | 1.9 | 2.71 | |
| 2/1/2011 | 4.76 | 5.27 | 18.17 | 18.32 | 16.14 | 1.89 | 2.45 | 0.67 | 0.21 | 1.53 | 1.18 | 1.43 | 1.89 | | 2.21 | | 2.04 | 3.03 | |
| 2/2/2011 | 4.83 | 5.44 | 19.17 | 19.28 | 16.48 | 1.7 | 2.21 | 0.29 | -0.36 | 0.99 | 0.29 | 1.12 | 1.63 | | 2.15 | | 1.74 | 3.06 | |
| 2/3/2011 | | 4.43 | 18.71 | 18.85 | 16.59 | 1.35 | 1.98 | 0.12 | -0.29 | 0.98 | 0.43 | 0.89 | 1.35 | | 1.99 | | 1.69 | 2.57 | |
| 2/4/2011 | | 4.98 | | | 16.5 | 1.68 | 1.71 | 0.66 | 0.24 | 1.57 | 1.16 | 1.22 | 1.81 | | 1.98 | | 2.2 | 2.71 | |
| 2/5/2011 | 4.55 | 5.22 | 21.7 | 21.81 | 17.18 | 1.47 | 1.91 | 0.23 | -0.17 | 1.07 | 0.44 | 0.82 | 1.43 | | 1.96 | | 1.81 | 2.69 | |

| USACE # | 03075 | 03060 | 40900 | 43500 | 58400 | 03540 | 03615 | 03645 | 03830 | 64650 | 76560 | 76360 | 76400 | 76480 | 52750 | 49365 | 03820 | 49235 | 49725 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/6/2011 | 4.64 | 5.35 | 21.16 | 21.29 | 16.67 | 1.75 | 1.88 | 0.9 | 0.67 | 1.89 | 1.52 | 1.32 | 1.97 | | 2 | | 2.49 | 2.86 | |
| 2/7/2011 | 4.91 | 5.66 | 20.11 | 20.26 | 16.54 | 1.88 | 1.86 | 1.05 | 0.92 | 2.08 | 1.65 | 1.48 | 2.21 | | 2.08 | | 2.77 | 3.06 | |
| 2/8/2011 | 4.99 | 5.76 | 19.34 | 19.49 | 16.64 | 1.55 | 1.98 | 0.51 | 0.41 | 1.48 | 0.76 | 0.7 | 1.7 | | 1.99 | | 2.22 | 2.86 | |
| 2/9/2011 | 4.9 | 5.63 | 18.78 | 18.94 | 16.65 | 1.74 | 2.11 | 0.41 | -0.02 | 1.12 | 0.53 | 0.96 | 1.57 | | 2.03 | | 1.94 | 3.05 | |
| 2/10/2011 | 4.98 | 5.6 | 18.75 | 18.91 | 16.58 | 1.64 | 2.09 | 0.17 | -0.5 | 0.85 | 0.12 | 0.9 | 1.33 | | 2.02 | | 1.69 | 3.03 | |
| 2/11/2011 | 5.42 | 6.29 | 18.82 | 18.97 | 16.68 | 1.69 | 1.96 | 0.26 | -0.09 | 1.14 | 0.15 | 0.87 | 1.4 | | 1.98 | | 1.66 | 3.04 | |
| 2/12/2011 | 6.21 | 7.16 | 18.39 | 18.55 | 16.58 | 2.07 | 2.03 | 0.49 | -0.08 | 1.16 | 0.24 | 0.87 | 1.46 | | 1.97 | | 1.9 | 3.44 | |
| 2/13/2011 | 6.62 | 7.56 | 17.96 | 18.13 | 16.33 | 2.29 | 2.22 | 0.62 | -0.25 | 1.18 | 0.33 | 0.76 | 1.7 | | 2.01 | | 1.69 | 3.73 | |
| 2/14/2011 | 6.76 | 7.71 | 17.62 | 17.77 | 16.48 | 2.38 | 2.32 | 0.71 | -0.22 | 1.25 | 0.48 | 1.13 | 1.63 | | 2.01 | | 1.8 | 3.79 | |
| 2/15/2011 | 7.32 | 8.36 | 17.29 | 17.46 | 16.53 | 2.69 | | 0.98 | -0.06 | 1.51 | 0.74 | 1.18 | 1.77 | | 2.04 | | 1.83 | 4.05 | |
| 2/16/2011 | 7.39 | 8.34 | 17.02 | 17.19 | 16.67 | 2.89 | | 1.22 | 0.15 | 1.79 | 0.97 | 1.28 | 2.17 | | 2.13 | | 2.06 | 4.23 | |
| 2/17/2011 | 7.23 | 8.21 | 16.75 | 16.91 | 16.68 | 2.89 | | 1.31 | 0.25 | 1.82 | 1.23 | 1.7 | 2.23 | | 2.18 | | 2.09 | 4.21 | |
| 2/18/2011 | 7.29 | 8.25 | 16.48 | 16.65 | 16.75 | 2.99 | | 1.47 | 0.47 | 2.1 | 1.44 | 1.59 | 2.41 | | 2.25 | | 2.49 | 4.26 | |
| 2/19/2011 | 6.66 | 7.5 | 16.2 | 16.36 | 16.73 | 2.75 | | 1.33 | 0.46 | 2.02 | 1.4 | 1.72 | 2.29 | | 2.19 | | 2.33 | 4.1 | |
| 2/20/2011 | 6.12 | 6.92 | 15.89 | 16.05 | 16.65 | 2.54 | | 1.47 | 0.92 | 2.33 | 1.87 | 1.77 | 2.63 | | 2.15 | | 2.93 | 3.78 | |
| 2/21/2011 | 5.46 | 6.13 | 15.62 | 15.78 | 16.53 | 2.33 | | 1.43 | 1.07 | 2.38 | 2.02 | 1.83 | 2.47 | | 2.18 | | 2.94 | 3.57 | |
| 2/22/2011 | 5.29 | 6.05 | 15.39 | 15.54 | 16.64 | 1.95 | | 1.12 | 1.18 | 2.16 | 1.65 | 1.48 | 2.11 | | 2.14 | | 2.79 | 3.28 | |
| 2/23/2011 | 5.07 | 5.73 | 15.17 | 15.32 | 16.74 | 1.77 | | 0.79 | 0.99 | 1.87 | 1.09 | 1.27 | 2.17 | | 2.06 | | 2.64 | 3.12 | |
| 2/24/2011 | 4.76 | 5.42 | 14.96 | 15.11 | 16.36 | 1.74 | | 0.7 | 0.93 | 1.75 | 0.82 | 1.3 | 1.85 | | | | 2.42 | 2.98 | |
| 2/25/2011 | 5.12 | 5.82 | 14.89 | 15.02 | 16.25 | 2.03 | | 0.75 | 0.53 | 1.65 | 1.04 | 1.55 | 2.02 | | 2.43 | | 2.28 | 3.24 | |
| 2/26/2011 | 5.45 | 6.24 | 14.79 | 14.91 | 16.34 | 1.92 | | 0.49 | 0.15 | 1.28 | 0.52 | 1.31 | 1.77 | | 2.31 | | 2.06 | 3.23 | |
| 2/27/2011 | 5.78 | 6.51 | 14.69 | 14.82 | 16.72 | 2.28 | | 0.9 | 0.36 | 1.69 | 1.17 | 1.49 | 2.13 | | 2.35 | | 2.26 | 3.47 | |
| 2/28/2011 | 7.31 | 8.32 | 14.64 | 14.76 | 16.85 | 3.07 | | 1.6 | 0.74 | 2.34 | 1.77 | 1.9 | 2.68 | | 2.53 | | 2.73 | 4.18 | |
| 3/1/2011 | 9.05 | 10.26 | 14.62 | 14.75 | 16.77 | 3.34 | | 1.46 | 0.08 | 1.79 | 0.83 | 1.68 | 2.27 | | 2.47 | | 2.14 | 4.6 | |
| 3/2/2011 | 9.82 | 11.2 | 14.6 | 14.73 | 17.11 | 3.89 | 2.98 | 2.07 | 0.6 | 2.3 | 1.59 | 1.86 | 2.55 | | 2.5 | | 2.71 | 5.04 | 2.45 |
| 3/3/2011 | 10.91 | 12.45 | 14.59 | 14.72 | 17.26 | 4.3 | 3.03 | 2.52 | 1.08 | 2.11 | 2.07 | 1.91 | 2.72 | | 2.53 | | 2.92 | 5.4 | 2.63 |
| 3/4/2011 | 12.71 | 14.45 | 14.57 | 14.7 | 17.13 | 4.96 | 3.1 | 3.03 | 1.28 | 2.62 | 2.27 | 2.42 | 3.14 | | 2.59 | | 3.03 | 5.9 | 2.9 |
| 3/5/2011 | 13.85 | 15.66 | 14.54 | 14.68 | 16.98 | 5.47 | 3.2 | 3.49 | 1.66 | 2.6 | 2.65 | 2.46 | 3.64 | | 2.67 | | 3.42 | 6.33 | 3.3 |
| 3/6/2011 | 15.12 | 17.02 | 19.54 | 19.65 | 16.49 | 5.76 | 3.44 | 3.46 | 1.04 | 2.36 | 1.9 | 2.36 | 3.46 | | 2.67 | | 3.13 | 6.8 | 3.3 |
| 3/7/2011 | 16.05 | 18.15 | 19.72 | 19.86 | 16.93 | 6.13 | 3.55 | 3.84 | 1.48 | 2.02 | 2.36 | 2.2 | 3.5 | | 2.61 | | 3.23 | 7.13 | 3.38 |
| 3/8/2011 | 17.1 | 19.25 | 18.82 | 18.98 | 16.94 | 6.55 | 3.69 | 4.24 | 1.98 | 2.11 | 2.71 | 2.32 | 3.95 | | 2.66 | | 3.65 | 7.55 | 3.6 |
| 3/9/2011 | 18.18 | 20.67 | 18.3 | 18.47 | 17.01 | 6.95 | 3.93 | 4.57 | 2.02 | 2.36 | 2.83 | 2.55 | 4.27 | | 2.76 | | 3.81 | 8.02 | 3.93 |
| 3/10/2011 | 18.96 | 21.33 | 19.52 | 19.66 | 17.25 | 7.32 | 4.12 | 4.65 | 1.21 | 2.05 | 2.07 | 2.1 | 4.21 | | 2.69 | | 3.3 | 8.55 | 3.92 |
| 3/11/2011 | 18.88 | 21.27 | 18.98 | 19.12 | 17.25 | 7.47 | 4.29 | 4.82 | 1.57 | 1.78 | 2.17 | 2.63 | 3.84 | | 2.65 | | 3.36 | 8.85 | 3.98 |
| 3/12/2011 | 19.06 | 21.51 | 18.3 | 18.46 | 17.2 | 7.64 | 4.48 | 5.02 | 1.53 | 2.43 | 2.49 | 2.25 | 4.31 | | 2.67 | | 3.32 | 9.11 | 4.15 |
| 3/13/2011 | 19.47 | 21.91 | 17.8 | 17.96 | 17.1 | 7.82 | 4.65 | 5.12 | 1.31 | 2.02 | 2.3 | 2.02 | 4.64 | | 2.69 | | 3.24 | 9.37 | 4.26 |
| 3/14/2011 | 19.71 | 22.16 | 17.32 | 17.48 | 17.24 | 7.97 | 4.8 | 5.28 | 1.35 | 2.01 | 2.36 | | | | 2.69 | | 3.26 | 9.58 | 4.44 |
| 3/15/2011 | 19.83 | 22.26 | 17.28 | 17.43 | 17.14 | 8.06 | 4.96 | 5.38 | 1.31 | 2.23 | 2.51 | | | | 2.75 | | 3.37 | 9.75 | 4.65 |
| 3/16/2011 | 19.92 | 22.44 | 17.41 | 17.56 | 16.66 | 8.15 | 5.09 | 5.42 | 1.39 | 2.28 | 2.48 | | | | 2.75 | | 3.38 | 9.87 | 4.78 |
| 3/17/2011 | 20.09 | 22.63 | 17.02 | 17.17 | 16.86 | 8.26 | 5.22 | 5.61 | 1.52 | 2.43 | 2.83 | | | | 2.78 | | 3.8 | 9.99 | 4.99 |

| USACE # | 03075 | 03060 | 40900 | 43500 | 58400 | 03540 | 03615 | 03645 | 03830 | 64650 | 76560 | 76360 | 76400 | 76480 | 52750 | 49365 | 03820 | 49235 | 49725 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3/18/2011 | 20.45 | 22.97 | 16.58 | 16.73 | 17.04 | 8.42 | 5.34 | 5.76 | 1.7 | 2.63 | 2.95 | | | -2.34 | 2.79 | | 3.9 | 10.14 | 5.14 |
| 3/19/2011 | 20.67 | 23.24 | 16.2 | 16.35 | 17.11 | 8.49 | 5.46 | 5.82 | 1.75 | 2.74 | 2.91 | | | -2.43 | 2.8 | | 3.67 | 10.28 | 5.23 |
| 3/20/2011 | 20.69 | 23.28 | 15.83 | 15.99 | 17.1 | 8.58 | 5.57 | 5.92 | 1.97 | 2.51 | 3.08 | | | -2.51 | 2.8 | | 3.81 | 10.4 | 5.35 |
| 3/21/2011 | 20.66 | 23.29 | 15.58 | 15.73 | 16.9 | 8.59 | 5.66 | 5.95 | 2.22 | 2.45 | 3.12 | | | -2.51 | 2.81 | | 4.07 | 10.49 | 5.42 |
| 3/22/2011 | 20.95 | 23.47 | 15.34 | 15.49 | 17 | 8.67 | 5.76 | 5.96 | 2.33 | 2.27 | 3 | | | -2.38 | 2.78 | | 4.11 | 10.58 | 5.47 |
| 3/23/2011 | 20.93 | 23.45 | 15.14 | 15.27 | 17.31 | 8.77 | 6.76 | 6.08 | 2.32 | 2.51 | 3.16 | | | -2.61 | 2.82 | | 4.18 | 10.69 | 5.68 |
| 3/24/2011 | 21.14 | 23.72 | 14.96 | 15.07 | 17.16 | 8.79 | 6.84 | 6.02 | 1.91 | 2.37 | 2.86 | | | -2.5 | 2.82 | | 4.02 | 10.77 | 5.7 |
| 3/25/2011 | 21.14 | 23.77 | 14.78 | 14.88 | 17.29 | 8.82 | 6.93 | 6.03 | 1.88 | 2.4 | 2.78 | 497.42 | 249.65 | -2.41 | 2.83 | | 3.93 | 10.81 | 5.72 |
| 3/26/2011 | 21.43 | 23.96 | 14.67 | 14.78 | 16.53 | 8.95 | 7.01 | 6.16 | 1.84 | 2.46 | 2.95 | | | -2.6 | 2.85 | | 4.01 | 10.9 | 5.86 |
| 3/27/2011 | 21.5 | 24.17 | 14.64 | 14.75 | 16.72 | 9.06 | 7.1 | 6.33 | 1.77 | 2.6 | 3.02 | | | -2.52 | 2.89 | | 4.01 | 10.99 | 5.99 |
| 3/28/2011 | 21.67 | 24.32 | 14.62 | 14.73 | 17.2 | 9.06 | 7.16 | 6.3 | 1.7 | 2.54 | 2.98 | | | -2.44 | 2.91 | | 4 | 11.06 | 6 |
| 3/29/2011 | 21.74 | 24.44 | 14.59 | 14.7 | 17.2 | 9.13 | 7.25 | 6.37 | 1.82 | 2.19 | 2.98 | | | -2.38 | 2.9 | | 3.99 | 11.11 | 6.04 |
| 3/30/2011 | 21.8 | 24.43 | 14.68 | 14.78 | 17.19 | 9.25 | 7.38 | 6.52 | 1.91 | 2.34 | 3.2 | | | -2.46 | 2.93 | | 4.15 | 11.28 | 6.24 |
| 3/31/2011 | 22.2 | 24.92 | 15.07 | 15.17 | 17.17 | 9.28 | 7.5 | 6.5 | 1.82 | 1.88 | 2.97 | | | -2.4 | 2.9 | | 4.03 | 11.29 | 6.2 |
| 4/1/2011 | 22 | 24.63 | 14.99 | 15.11 | 16.95 | 9.37 | 7.56 | 6.6 | 1.94 | 2.07 | 3.22 | | | -2.35 | 2.89 | | 4.15 | 11.33 | 6.28 |
| 4/2/2011 | 22.04 | 24.74 | 14.85 | 14.96 | 17.27 | 9.38 | 7.6 | 6.62 | 2.02 | 2 | 3.25 | | | -2.33 | 2.91 | | 4.12 | 11.37 | 6.32 |
| 4/3/2011 | 22.11 | 24.74 | 14.81 | 14.91 | 17.13 | 9.41 | 7.66 | 6.68 | 2.36 | 1.97 | 3.43 | | | -2.36 | 2.9 | | 4.3 | 11.39 | 6.34 |
| 4/4/2011 | 21.92 | 24.44 | 14.7 | 14.82 | 17.23 | 9.42 | 7.79 | 6.76 | 2.91 | 2.35 | 3.76 | | | -2.51 | 2.9 | | 4.74 | 11.42 | 6.47 |
| 4/5/2011 | 22.09 | 24.71 | 15.03 | 15.12 | 16.66 | 9.51 | 7.81 | 6.7 | 1.82 | 2.77 | 3.23 | | | -2.41 | 2.99 | | 4.05 | 11.47 | 6.43 |
| 4/6/2011 | 21.89 | 24.53 | 15.18 | 15.27 | 17 | 9.43 | 7.82 | 6.66 | 2.39 | 2.17 | 3.31 | | | -2.38 | 2.95 | | 4.49 | 11.45 | 6.39 |
| 4/7/2011 | 21.54 | 24.1 | 15.13 | 15.21 | 17.46 | 9.36 | 7.83 | 6.61 | 2.2 | 2.19 | 3.37 | 3.12 | 5.24 | -2.36 | | | 4.26 | 11.4 | 6.4 |
| 4/8/2011 | 21.09 | 23.63 | 14.94 | 15.02 | 17.2 | 9.22 | 7.81 | 6.48 | 2.31 | 2.14 | 3.19 | 2.94 | 5.53 | -2.35 | | | 4.36 | 11.3 | 6.37 |
| 4/9/2011 | 20.62 | 23.06 | 14.86 | 14.95 | 17.23 | 9.1 | 7.78 | 6.4 | 2.29 | 2.31 | 3.33 | 2.84 | 5.14 | -2.34 | | | 4.56 | 11.18 | 6.35 |
| 4/10/2011 | 20.51 | 22.75 | 14.81 | 14.9 | 17.38 | 9.01 | 7.76 | 6.3 | 2.24 | 2.31 | 3.22 | 3.2 | 4.69 | -2.34 | | | 4.37 | 11.08 | 6.26 |
| 4/11/2011 | 20.26 | 22.64 | 14.75 | 14.85 | 17.42 | 8.95 | 7.68 | 6.34 | 2.27 | 2.71 | 3.6 | 3.14 | 5.28 | -2.34 | | | 4.45 | 10.99 | 6.3 |
| 4/12/2011 | 20.11 | 22.45 | 14.7 | 14.82 | 17.1 | 8.87 | 7.64 | 6.15 | 1.67 | 2.69 | 2.77 | 3.04 | 5.09 | -2.33 | | | 3.98 | 10.92 | 6.18 |
| 4/13/2011 | 19.78 | 22.07 | 14.77 | 14.87 | 17.41 | 8.71 | 7.55 | 6.01 | 1.74 | 2.34 | 3 | 3.08 | 4.74 | -2.34 | | | 3.98 | 10.79 | 6.04 |
| 4/14/2011 | 19.01 | 21.15 | 14.66 | 14.78 | 17.18 | 8.51 | 7.45 | 5.87 | 1.79 | 2.49 | 3.11 | | 4.93 | -2.35 | 2.97 | | 4.05 | 10.63 | 5.95 |
| 4/15/2011 | 18.26 | 20.22 | 14.6 | 14.72 | 17.27 | 8.26 | 7.38 | 5.76 | 2.09 | 2.71 | 3.27 | | 4.78 | -2.35 | 2.94 | | 4.23 | 10.42 | 5.91 |
| 4/16/2011 | 17.85 | 19.91 | 14.96 | 15.01 | 17.21 | 7.99 | 7.24 | 5.4 | 1.55 | 2.7 | 2.88 | | 4.56 | -2.36 | 2.96 | 17.45 | 3.98 | 10.19 | 5.75 |
| 4/17/2011 | 17.81 | 19.92 | 15.01 | 15.08 | 17.41 | 7.79 | 7.1 | 5.22 | 1.72 | 2.02 | 2.74 | | 4.45 | -2.38 | 2.89 | 17.42 | 4.12 | 9.98 | 5.49 |
| 4/18/2011 | 17.95 | 20.02 | 15.03 | 15.1 | 17.12 | 7.82 | 6.98 | 5.42 | 2.44 | 2.38 | 3.39 | | 5.18 | -2.39 | 2.88 | 17.38 | 4.5 | 9.89 | 5.5 |
| 4/19/2011 | 17.67 | 19.67 | 14.82 | 14.91 | 17.24 | 7.74 | 6.93 | 5.33 | 2.47 | 2.37 | 3.31 | | 4.68 | -2.39 | 2.9 | 17.36 | 4.51 | 9.81 | 5.45 |
| 4/20/2011 | 17.9 | 19.97 | 14.71 | 14.83 | 17.33 | 7.75 | 6.82 | 5.37 | 2.85 | 2.77 | 3.46 | | 4.81 | -2.4 | 2.94 | 17.33 | 4.5 | 9.77 | 5.45 |
| 4/21/2011 | 17.88 | 19.89 | 14.62 | 14.74 | 17.24 | 7.68 | 6.76 | 5.16 | 2.19 | 2.59 | 2.9 | | 4.41 | -2.42 | 2.9 | 17.31 | 4.08 | 9.74 | 5.3 |
| 4/22/2011 | 18.01 | 20.14 | 14.56 | 14.69 | 17.13 | 7.69 | 6.7 | 5.18 | 2.35 | 2.73 | 3.04 | | 4.41 | -2.43 | 2.88 | 17.29 | 4.23 | 9.7 | 5.29 |
| 4/23/2011 | 18.61 | 20.8 | 14.51 | 14.65 | 17.21 | 7.8 | 6.68 | 5.23 | 2 | 2.48 | 2.94 | | 4.44 | -2.45 | 2.91 | 17.26 | 4.12 | 9.73 | 5.29 |
| 4/24/2011 | 19.22 | 21.49 | 14.62 | 14.75 | 17.28 | 7.98 | 6.68 | 5.37 | 1.71 | 2.63 | 3.01 | | 4.89 | -2.47 | 2.93 | 17.24 | 3.96 | 9.82 | 5.34 |
| 4/25/2011 | 19.64 | 21.99 | 14.6 | 14.72 | 17.35 | 8.14 | 6.68 | 5.54 | 2.15 | 2.7 | 3.21 | 2.76 | 4.56 | -2.48 | 2.91 | 17.21 | 4.19 | 9.96 | 5.41 |
| 4/26/2011 | 19.21 | 21.45 | 14.54 | 14.69 | 17.15 | 8.53 | 6.74 | 5.76 | 2.27 | 3.1 | 3.61 | | 4.81 | -2.49 | 4.01 | 17.26 | 4.32 | 10.1 | 5.61 |

| USACE # | 03075 | 03060 | 40900 | 43500 | 58400 | 03540 | 03615 | 03645 | 03830 | 64650 | 76560 | 76360 | 76400 | 76480 | 52750 | 49365 | 03820 | 49235 | 49725 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4/27/2011 | 18.98 | 21.13 | 14.55 | 14.7 | 17.33 | 8.61 | 6.86 | 6.02 | 2.85 | 3.39 | 4.28 | 3.22 | 5.27 | -2.51 | 4.03 | 17.24 | 4.89 | 10.18 | 5.91 |
| 4/28/2011 | 19.9 | 22.36 | 14.6 | 14.73 | 17.13 | 8.62 | 6.86 | 5.74 | 1.66 | 3.01 | 3.3 | | 3.9 | -2.52 | 4.07 | | 4.07 | 10.24 | 5.69 |
| 4/29/2011 | 20.75 | 23.33 | 14.51 | 14.66 | 17.38 | 8.7 | 6.9 | 5.78 | 1.88 | 2.38 | 3.09 | 2.96 | 4.84 | -2.54 | 3.97 | 17.18 | 4.26 | 10.34 | 5.58 |
| 4/30/2011 | 20.83 | 23.45 | 14.48 | 14.63 | 17.11 | 8.93 | 6.97 | 6.15 | 2.71 | 2.72 | 3.79 | 3.19 | 4.56 | -2.57 | 3.99 | 17.16 | 4.78 | 10.53 | 5.77 |
| 5/1/2011 | 20.94 | 23.49 | 14.5 | 14.66 | 17.26 | 9.06 | 7.04 | 6.16 | 2.6 | 2.64 | 3.59 | 3.01 | 5.02 | -2.57 | 3.99 | 17.14 | 4.56 | 10.68 | 5.84 |
| 5/2/2011 | 21.43 | 24.06 | 14.45 | 14.59 | 17.18 | 9.19 | 7.11 | 6.29 | 2.56 | 2.56 | 3.64 | 3.21 | 5 | -2.57 | 3.99 | 17.13 | 4.51 | 10.82 | 5.92 |
| 5/3/2011 | 22.04 | 24.73 | 14.56 | 14.72 | 17.27 | 9.37 | 7.16 | 6.39 | 2.17 | 2.52 | 3.41 | 3.09 | 5.02 | -2.57 | 3.99 | 17.13 | 4.42 | 11.01 | 6.01 |
| 5/4/2011 | 22.85 | 25.63 | 15.18 | 15.25 | 17.23 | 9.54 | 7.3 | 6.44 | | 1.67 | 2.84 | 2.78 | 5.03 | -2.58 | 3.89 | 17.17 | 3.93 | 11.21 | 5.95 |
| 5/5/2011 | 23.51 | 26.39 | 15.23 | 15.3 | 17.22 | 9.82 | 7.43 | 6.77 | 2.29 | 1.81 | 3.23 | 2.8 | 5.24 | -2.59 | 3.92 | 17.12 | 4.26 | 11.48 | 6.17 |
| 5/6/2011 | 23.97 | 26.95 | 14.92 | 15 | 17.14 | 10.08 | 7.6 | 6.99 | 2.36 | 1.9 | 3.27 | 3.11 | 5.34 | -2.6 | 3.92 | 17.08 | 4.34 | 11.78 | 6.39 |
| 5/7/2011 | 24.64 | 27.68 | 14.69 | 14.81 | 17.24 | 10.31 | 7.81 | 7.26 | 2.56 | 1.78 | 3.42 | | 5.99 | -2.61 | 3.93 | 17.06 | 4.51 | 12.04 | 6.58 |
| 5/8/2011 | 25.25 | 28.34 | 14.58 | 14.71 | 17.19 | 10.58 | 8.05 | 7.51 | 2.44 | 1.99 | 3.28 | | 5.71 | -2.62 | 3.96 | 17.04 | 4.47 | 12.21 | 6.82 |
| 5/9/2011 | 26.08 | 29.3 | 14.57 | 14.7 | 17.26 | 10.84 | 8.33 | 7.76 | 2.42 | 2.1 | 3.6 | | 6.06 | -2.62 | 4 | 17.02 | 4.5 | 12.54 | 7.06 |
| 5/10/2011 | 26.96 | 30.21 | 14.5 | 14.64 | 17.34 | 11.12 | 8.67 | 8.04 | 2.41 | 2.23 | 3.7 | | 6.19 | -2.62 | 4.03 | 17.01 | 4.59 | 12.86 | 7.34 |
| 5/11/2011 | 27.83 | 31.33 | 14.45 | 14.61 | 17.32 | 11.42 | 9.08 | 8.34 | 2.49 | 2.44 | 3.85 | | 6.38 | -2.72 | 4.07 | 16.99 | 4.72 | 13.23 | 7.65 |
| 5/12/2011 | 28.37 | 31.81 | 14.52 | 14.69 | 16.97 | 11.66 | 9.56 | 8.58 | 2.54 | 2.58 | 3.99 | | 6.49 | -2.82 | 4.12 | 16.97 | 4.87 | 13.52 | 7.97 |
| 5/13/2011 | 29.03 | 32.59 | 14.67 | 14.85 | 16.6 | 11.82 | 10.07 | 8.86 | 2.99 | 2.62 | 4.36 | | 6.96 | -2.88 | 4.14 | 16.95 | 5.4 | 13.75 | 8.33 |
| 5/14/2011 | 29.74 | 33.4 | 14.88 | 15.2 | 16.29 | 12 | 10.62 | 9.01 | 2.42 | 2.64 | 4.1 | 3.39 | 7.01 | -2.96 | 4.16 | | 4.99 | 13.96 | 8.66 |
| 5/15/2011 | 30.03 | 33.81 | | | 16.41 | 12.16 | 11.19 | 9.16 | 2.68 | 2.02 | 3.92 | 3.28 | 6.97 | -2.97 | 4.12 | | 5.13 | 14.15 | 8.87 |
| 5/16/2011 | 30.22 | 34.07 | | | 16.44 | 12.33 | 11.7 | 9.38 | 2.52 | 2.04 | 4.04 | | 7.25 | -2.9 | 4.11 | | 5.28 | 14.32 | 9.19 |
| 5/17/2011 | 30.2 | 34.07 | | | 16.42 | 12.49 | 12.18 | 9.56 | 2.99 | 1.75 | 4.07 | 3.19 | 7.48 | -2.93 | 4.07 | | 5.46 | 14.44 | 9.46 |
| 5/18/2011 | 30.18 | 33.94 | | | 16.45 | 12.64 | 12.6 | 9.8 | 3.13 | 2.01 | 4.35 | 2.45 | 7.59 | -3 | 4.04 | | 5.76 | 14.55 | 9.78 |
| 5/19/2011 | 30.64 | 34.35 | | | 16.5 | 12.8 | 12.98 | 10 | 3.33 | 2.31 | 4.47 | 3.21 | 7.8 | -3.03 | 3.99 | | 5.88 | 14.68 | 10.06 |
| 5/20/2011 | 30.91 | 34.73 | | | 16.52 | 12.97 | 13.4 | 10.21 | 3.4 | 2.26 | 4.56 | 2.91 | 8.08 | -3 | 4.02 | | 5.88 | 14.85 | 10.32 |
| 5/21/2011 | 31.35 | 35.09 | | | 16.54 | 13.22 | 14.05 | 10.53 | 3.25 | 2.49 | 4.67 | 3.15 | 7.97 | -2.97 | 4.04 | | 5.92 | 15.11 | 10.64 |
| 5/22/2011 | 31.54 | 35.32 | | | 16.54 | 13.66 | 14.91 | 10.97 | 3.2 | 2.49 | 4.72 | 3.13 | 8.61 | -2.95 | 4.03 | | 6.06 | 15.52 | 11.14 |
| 5/23/2011 | 31.8 | 35.51 | | | 16.53 | 14.16 | 15.68 | 11.48 | 3.22 | 2.48 | 4.89 | 2.92 | 8.8 | -2.93 | 3.98 | | 6.22 | 15.96 | 11.68 |
| 5/24/2011 | 31.91 | 35.68 | | | 16.53 | 14.63 | 16.28 | 11.95 | 3.3 | 2.62 | 5.05 | 2.83 | 9.24 | -2.91 | 3.95 | | 6.43 | 16.38 | 12.2 |
| 5/25/2011 | 31.93 | 35.58 | | | 16.51 | 15.02 | 16.74 | 12.34 | 3.46 | 2.81 | 5.25 | 2.55 | 9.47 | -2.89 | 3.94 | | 6.69 | 16.72 | 12.6 |
| 5/26/2011 | 31.94 | 35.59 | | | 16.5 | 15.31 | 17.06 | 12.63 | 3.47 | 2.94 | 5.41 | 2.56 | 10.23 | -3.01 | 3.93 | | 6.87 | 16.95 | 12.91 |
| 5/27/2011 | 31.93 | 35.46 | | | 16.53 | 15.5 | 17.24 | 12.79 | 3.28 | 2.67 | 5.32 | 2.89 | 9.87 | -3.01 | 3.97 | | 6.91 | 17.08 | 13.07 |
| 5/28/2011 | 31.67 | 35.19 | | | 16.53 | 15.56 | 17.3 | 12.83 | 3.56 | 2.65 | 5.34 | 2.79 | 9.91 | -2.98 | 3.93 | | 7.03 | 17.12 | 13.15 |
| 5/29/2011 | 31.48 | 34.92 | | | 16.51 | 15.56 | 17.28 | 12.86 | 3.7 | 2.72 | 5.45 | 2.86 | 9.94 | -2.95 | 3.94 | | 7.16 | 17.09 | 13.19 |
| 5/30/2011 | 31.11 | 34.54 | | | 16.52 | 15.5 | 17.19 | 12.81 | 3.7 | 2.76 | 5.45 | 2.9 | 9.86 | -2.93 | 3.95 | | 7.08 | 17 | 13.15 |
| 5/31/2011 | 30.71 | 34.08 | | | 16.53 | 15.37 | 17.03 | 12.68 | 3.64 | 2.69 | 5.43 | 2.81 | 9.98 | -2.9 | 3.95 | | 7.05 | 16.85 | 13.05 |
| 6/1/2011 | 30.22 | 33.5 | | | 16.52 | 15.17 | 16.8 | 12.47 | 3.42 | 2.49 | 5.28 | 2.79 | 9.42 | -2.89 | 3.93 | | 6.97 | 16.63 | 12.88 |
| 6/2/2011 | 29.8 | 32.98 | | | 16.49 | 14.92 | 16.49 | 12.22 | 3.37 | 2.23 | 5.23 | | 9.57 | -2.87 | 3.93 | | 6.85 | 16.39 | 12.64 |
| 6/3/2011 | 29.33 | 32.48 | | | 16.43 | 14.67 | 16.16 | 11.98 | 3.62 | 2.2 | 5.17 | | 9.64 | -2.87 | 3.92 | | 6.83 | 16.12 | 12.39 |
| 6/4/2011 | | | | | 16.41 | 14.4 | | 11.72 | | | 5.09 | | | -2.86 | | | | 15.84 | |
| 6/5/2011 | | | | | 16.53 | 14.12 | | 11.45 | | | 4.97 | | | -2.86 | | | | 15.58 | |

| USACE # | 03075 | 03060 | 40900 | 43500 | 58400 | 03540 | 03615 | 03645 | 03830 | 64650 | 76560 | 76360 | 76400 | 76480 | 52750 | 49365 | 03820 | 49235 | 49725 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6/6/2011 | | | | | 16.58 | 13.89 | 15.14 | 11.18 | | | 4.83 | | | -2.85 | | | | 15.32 | 11.66 |
| 6/7/2011 | 28.03 | 32.24 | | | 16.95 | 13.57 | 14.81 | 10.95 | 3.12 | 2.11 | 4.8 | 2.71 | 8.93 | -2.84 | 3.88 | | 6.39 | 15.1 | 11.41 |
| 6/8/2011 | 27.65 | 31.97 | | 27.48 | 17.21 | 13.33 | 14.43 | 10.66 | 3.13 | 2.08 | 4.79 | 2.71 | 8.45 | -2.84 | 3.86 | | 6.3 | 14.84 | 11.15 |
| 6/9/2011 | 27.02 | 8.72 | | 27.2 | 17.25 | 13.07 | 14.02 | 10.39 | 3.12 | 2.15 | 4.66 | 2.67 | 8.27 | -2.83 | 3.85 | | 6 | 14.58 | 10.9 |
| 6/10/2011 | 26.5 | 29.42 | | 26.9 | 17.25 | 12.8 | 13.57 | 10.1 | 3 | 2.41 | 4.74 | 2.66 | 7.95 | -2.8 | 3.84 | | 5.96 | 14.3 | 10.63 |
| 6/11/2011 | 26 | 28.87 | | 26.59 | 17.27 | 12.51 | 13.05 | 9.78 | 2.94 | 2.41 | 4.56 | 2.58 | 7.93 | -2.8 | 3.82 | | 5.9 | 13.99 | 10.32 |
| 6/12/2011 | 25.37 | 28.16 | | 26.44 | 17.1 | 12.21 | 12.56 | 9.46 | 2.97 | 2.4 | 4.49 | 2.69 | 7.83 | -2.77 | 3.81 | | 5.78 | 13.72 | 10.04 |
| 6/13/2011 | 24.85 | 27.56 | | 26.41 | 17.22 | 11.89 | 12.05 | 9.13 | 2.97 | 2.37 | 4.4 | 2.62 | 7.48 | -2.77 | 3.8 | | 5.71 | 13.39 | 9.69 |
| 6/14/2011 | 24.38 | 27.11 | | 26.31 | 17.31 | 11.6 | | | 2.99 | 2.25 | 4.32 | 2.5 | 7.39 | -2.76 | 3.77 | | 5.61 | 13.11 | 9.35 |
| 6/15/2011 | 24.71 | 27.61 | | 26.06 | 17.4 | 11.34 | | | 3.04 | 2.13 | 4.21 | 2.28 | 7.09 | -2.76 | 3.74 | | 5.57 | 12.85 | 9.04 |
| 6/16/2011 | 23.43 | 25.97 | | 25.7 | 17.45 | 11.16 | | | 2.7 | 2.17 | 4.05 | 2.35 | 7.05 | -2.8 | 3.72 | | 5.32 | 12.68 | 8.8 |
| 6/17/2011 | 22.73 | 25.13 | | 25.29 | 17.66 | 10.84 | | | 2.94 | 2.12 | 4.02 | 1.96 | 6.72 | -2.78 | 3.69 | | 5.29 | 12.35 | 8.48 |
| 6/18/2011 | 22.63 | 25.03 | | 24.85 | 17.61 | 10.61 | | | 3.04 | 2.24 | 4.01 | 2.31 | 6.81 | -2.78 | 3.68 | | 5.29 | 12.11 | 8.24 |
| 6/19/2011 | 22.21 | 24.65 | | 24.35 | 17.54 | 10.41 | | | 2.77 | 2.34 | 3.93 | 2.51 | 6.51 | -2.77 | 3.65 | | 5.15 | 11.91 | 8.02 |
| 6/20/2011 | 21.56 | 23.85 | | 23.84 | 17.69 | 10.17 | | | 2.98 | 2.45 | 3.95 | 1.99 | 6.43 | -2.76 | 3.65 | | 5.22 | 11.71 | 7.82 |
| 6/21/2011 | 20.76 | 22.91 | | 23.3 | 17.59 | 9.94 | | | 3.11 | 2.77 | 4.08 | 2.11 | 6.47 | -2.75 | 3.69 | | 5.29 | 11.48 | 7.67 |
| 6/22/2011 | 20.44 | 22.65 | | 22.76 | 17.08 | 9.72 | 8.97 | | 2.99 | 2.74 | 3.99 | 2.32 | 6.24 | -2.74 | 3.72 | | 5.15 | 11.26 | 7.45 |
| 6/23/2011 | 20.78 | 22.58 | | 22.28 | 17.3 | 9.65 | 8.9 | | 2.49 | 2.74 | 3.89 | 2.63 | 6.07 | -2.61 | 3.81 | | 5.01 | 11.19 | 7.39 |
| 6/24/2011 | 20.39 | 21.59 | | 21.87 | 17.6 | 9.38 | 8.68 | | 2.54 | 2.68 | 3.79 | 2.56 | 6.1 | -2.61 | 3.8 | | 4.94 | 10.97 | 7.13 |
| 6/25/2011 | 19.75 | 21.11 | | 21.72 | 17.43 | 9.15 | | | 2.53 | 2.66 | 3.71 | 2.26 | 6.15 | -2.61 | 3.77 | | 4.89 | 10.73 | 6.92 |
| 6/26/2011 | 19.19 | 20.61 | | 21.51 | 17.28 | 8.9 | | | 2.46 | 2.61 | 3.69 | 2.39 | 5.66 | -2.61 | 3.74 | | 4.81 | 10.5 | 6.7 |
| 6/27/2011 | 18.79 | 20.28 | | 21.22 | 17.39 | 8.68 | | | 2.59 | 2.52 | 3.71 | 2.28 | 5.74 | -2.61 | 3.72 | | 4.8 | 10.29 | 6.51 |
| 6/28/2011 | 18.09 | 19.6 | 21.78 | | 17.46 | 8.49 | | | 2.43 | 2.48 | 3.51 | 2.34 | 5.75 | -2.54 | 3.7 | | 4.68 | 10.09 | 6.32 |
| 6/29/2011 | 17.4 | 18.82 | 21.79 | | 17.53 | 8.21 | | | 2.23 | 2.39 | 3.48 | 2.45 | 5.28 | -2.53 | 3.68 | | 4.58 | 9.85 | 6.16 |
| 6/30/2011 | 16.63 | 18.05 | 21.82 | | 17.37 | 7.92 | 7.37 | | 2.46 | 2.37 | 3.43 | 2.49 | 4.84 | -2.36 | 3.67 | | 4.58 | 9.59 | 5.93 |
| 7/1/2011 | 16.74 | 18.31 | 21.84 | | 17.6 | 7.73 | 7.14 | | 2.21 | 2.16 | 3.23 | | 4.96 | -2.37 | 3.66 | | 4.44 | 9.35 | 5.72 |
| 7/2/2011 | 16.74 | 18.2 | 21.85 | | 17.6 | 7.65 | 6.96 | | 2.15 | 1.93 | 2.96 | | 4.82 | -2.37 | 3.61 | | 4.27 | 9.21 | 5.55 |
| 7/3/2011 | 16.92 | 18.57 | 21.86 | | 17.49 | 7.54 | 6.81 | | 2.16 | 1.74 | 2.98 | | 4.91 | -2.4 | 3.6 | | 4.21 | 9.09 | 5.38 |
| 7/4/2011 | 17.09 | 18.72 | 21.86 | 19.78 | 17.63 | 7.56 | 6.72 | | 2.32 | 1.86 | 3.04 | | 4.32 | -2.44 | 3.58 | | 4.27 | 9.03 | 5.29 |
| 7/5/2011 | 17.1 | 18.76 | 21.87 | 19.56 | 17.72 | 7.55 | 6.72 | | 2.32 | 1.86 | 3.03 | | 4.47 | -2.47 | 3.57 | | 4.25 | 9 | 5.24 |
| 7/6/2011 | 16.44 | 18.3 | 21.9 | | 17.58 | 7.5 | 6.72 | | 2.15 | 2.46 | 2.98 | | 4.3 | -2.45 | 3.57 | | 4.16 | 8.97 | 5.22 |
| 7/7/2011 | 16.35 | 18.26 | 21.91 | | 17.62 | 7.41 | 6.72 | | 2.06 | 2.24 | 2.92 | 1.95 | 4.38 | -2.47 | 3.56 | | 4.13 | 8.9 | 5.12 |
| 7/8/2011 | 16.59 | 18.56 | 21.92 | | 17.57 | 7.43 | 6.72 | | 1.97 | 2.42 | 2.99 | 1.86 | 4.43 | -2.47 | 3.54 | | 4.13 | 8.84 | 5.1 |
| 7/9/2011 | 16.86 | 18.89 | 21.92 | | 17.59 | 7.43 | 6.71 | | 2.12 | 2.74 | 3.11 | 1.89 | 4.67 | -2.44 | 3.51 | | 4.19 | 8.83 | 5.09 |
| 7/10/2011 | 16.76 | 18.87 | 21.93 | | 17.59 | 7.45 | 6.71 | | 2.1 | 2.58 | 3.17 | 1.86 | 4.41 | -2.47 | 3.52 | | 4.21 | 8.83 | 5.08 |
| 7/11/2011 | 16.66 | 18.67 | 21.92 | | 17.68 | 7.42 | 6.71 | | 2.12 | 3.06 | 2.86 | 2.05 | 4.14 | -2.48 | 3.55 | | 4.23 | 8.8 | 5.05 |
| 7/12/2011 | 16.14 | 18.01 | 21.91 | | 17.67 | 7.29 | 6.7 | | 2.12 | 2.31 | 3.13 | 1.92 | 3.79 | -2.49 | 3.52 | | 4.19 | 8.76 | 4.98 |
| 7/13/2011 | 15.76 | 17.54 | 21.91 | | 17.55 | 7.17 | 6.7 | | 2.17 | 2.23 | 3.14 | 1.9 | 4.58 | -2.37 | 3.5 | | 4.28 | 8.67 | 4.94 |
| 7/14/2011 | 15.8 | 17.65 | 21.88 | | 17.49 | 7.06 | 6.7 | 6.05 | 2.09 | 2.11 | 2.92 | 2.03 | 4.09 | -2.18 | 3.51 | | 4.07 | 8.56 | 4.84 |
| 7/15/2011 | 15.92 | 17.82 | 21.54 | | 17.44 | 7.1 | 6.72 | 6.15 | 2.3 | 2.16 | 3.09 | 2.16 | 4.85 | -2.1 | 3.55 | | 4.2 | 8.6 | 4.91 |

| USACE # | 03075 | 03060 | 40900 | 43500 | 58400 | 03540 | 03615 | 03645 | 03830 | 64650 | 76560 | 76360 | 76400 | 76480 | 52750 | 49365 | 03820 | 49235 | 49725 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/16/2011 | 15.76 | 17.61 | 21.33 | | 17.41 | 7.15 | 6.72 | 6.13 | 2.3 | 2.16 | 3.09 | 1.77 | 4.32 | -2.13 | 3.6 | | 4.14 | | 4.89 |
| 7/17/2011 | 15.49 | 17.3 | 21.06 | | 17.66 | 7.03 | 6.72 | 5.99 | 1.99 | 2.02 | 2.86 | 1.96 | 4.22 | -2.23 | 3.61 | | 3.94 | | 4.82 |
| 7/18/2011 | 15.56 | 17.36 | | | 17.59 | 6.96 | 6.72 | 5.93 | 2.08 | 2.22 | 2.81 | 2.07 | 4.55 | -2.05 | 3.59 | | 3.97 | | 4.75 |
| 7/19/2011 | 14.81 | 16.51 | | | 17.49 | 6.88 | 6.73 | 5.88 | 2.14 | 2.18 | 2.85 | 2.3 | 4.17 | -2.32 | 3.74 | | 3.98 | | 4.79 |
| 7/20/2011 | 14.25 | 15.91 | | | 17.3 | 6.68 | 6.72 | 5.74 | 2.08 | 2.26 | 2.81 | 2.53 | 3.93 | -2.22 | 3.73 | | 3.92 | | 4.69 |
| 7/21/2011 | 14.06 | 15.69 | | | 17.08 | 6.53 | 6.72 | 5.58 | 1.86 | 2.02 | 2.69 | 2.22 | 3.84 | -2.53 | 3.69 | | 3.81 | 8.06 | 4.6 |
| 7/22/2011 | 13.6 | 15.17 | 19.95 | 16.64 | 17.15 | 6.41 | | 5.54 | 1.92 | 2.39 | 2.87 | 2.3 | 4.2 | -2.51 | 3.67 | | 3.86 | 8.11 | 4.54 |
| 7/23/2011 | 13.26 | 14.83 | 19.78 | 16.41 | 17.49 | 6.26 | | 5.53 | 2.15 | 2.49 | 3.02 | 2.22 | 4.01 | -2.12 | 3.67 | | 3.98 | 7.95 | 4.52 |
| 7/24/2011 | 13.15 | 14.75 | 19.61 | 16.23 | 17.65 | 6.18 | | 5.43 | 1.94 | 2.57 | 2.68 | 2.3 | 4.21 | -2.38 | 3.65 | | 3.84 | 7.83 | 4.44 |
| 7/25/2011 | 12.95 | 14.49 | 19.38 | 16.04 | 17.58 | 6.15 | | | 2.46 | 2.45 | 3.02 | 2.28 | 3.89 | -2.52 | 3.66 | | 3.97 | 7.79 | 4.43 |
| 7/26/2011 | 12.15 | 13.49 | | 15.87 | 17.59 | 5.94 | | | 2.18 | 2.62 | 2.87 | 2.29 | 3.94 | -2.15 | 3.68 | | 3.85 | 7.69 | 4.37 |
| 7/27/2011 | 10.6 | 11.74 | | 15.7 | 17.63 | 5.46 | | | 2.1 | 2.38 | 2.8 | 2.25 | 3.64 | -2.61 | 3.68 | | 3.85 | 7.34 | 4.21 |
| 7/28/2011 | 10.04 | 11.18 | | 15.53 | 17.83 | 5.16 | | 4.85 | 2.18 | 2.37 | 2.99 | 2.26 | 3.47 | -2.62 | 3.68 | | 3.92 | 7.01 | 4.1 |
| 7/29/2011 | 9.63 | 10.72 | | 15.35 | 17.64 | 4.95 | 5.02 | 4.79 | 2.4 | 2.55 | 3.08 | 2.14 | 3.51 | -2.36 | 3.7 | | 3.98 | 6.74 | 4 |
| 7/30/2011 | | | | 15.08 | 17.25 | 4.94 | | | | | 3.01 | | | -2.36 | | | | 6.59 | |
| 7/31/2011 | | | | 14.81 | 16.63 | 4.85 | | 4.57 | | | 2.76 | | | -2.02 | | | | 6.45 | |
| 8/1/2011 | 9.57 | 10.76 | | 14.61 | 17.35 | 4.69 | 4.32 | 4.53 | 2.08 | 2.36 | 2.85 | | 3.34 | -2.65 | 3.73 | | 3.73 | 6.28 | 3.8 |
| 8/2/2011 | 9.23 | 10.39 | | 14.48 | 17.65 | 4.52 | 4.18 | 4.29 | 1.81 | 2.45 | 2.52 | 2.58 | 3.21 | -2.03 | 3.5 | | 3.57 | 6.1 | 3.66 |
| 8/3/2011 | 8.78 | 9.87 | | 14.41 | 17.61 | 4.29 | 4.05 | 4.05 | 1.71 | 2.2 | 2.36 | 2.44 | 2.92 | -2.37 | 3.47 | | 3.46 | 5.9 | 3.47 |
| 8/4/2011 | 8.06 | 9.14 | | 14.42 | 17.6 | 4.02 | 3.91 | 3.88 | 1.76 | 2.06 | 2.39 | 2.25 | 2.81 | -2.51 | 3.44 | | 3.42 | 5.65 | 3.32 |
| 8/5/2011 | 7.86 | 8.88 | | 14.55 | 17.7 | 3.85 | 3.76 | 3.69 | 1.67 | 2.41 | 2.2 | 2.23 | 2.58 | -2.32 | 3.38 | | 3.34 | 5.45 | 3.17 |
| 8/6/2011 | 8.25 | 9.37 | | 14.56 | 17.17 | 3.84 | 3.61 | 3.9 | 1.88 | 2.73 | 2.62 | 2.14 | 2.96 | -2.3 | 3.36 | | 3.49 | 5.36 | 3.19 |
| 8/7/2011 | 8.4 | 9.49 | | 14.52 | 17.14 | 3.92 | 3.47 | 3.88 | 1.72 | 2.64 | 2.43 | 1.62 | 3.1 | -2.33 | 3.33 | | 3.4 | 5.35 | 3.19 |
| 8/8/2011 | 8.31 | 9.38 | | 14.47 | 17.5 | 3.93 | 3.34 | 4.06 | 2.08 | 2.31 | 2.66 | 2.77 | 3.1 | -2.41 | 3.34 | | 3.66 | 5.3 | 3.28 |
| 8/9/2011 | 8.24 | 9.33 | | 14.44 | 17.62 | 3.92 | 3.24 | 4.02 | 2.05 | 2.52 | 2.71 | 2.15 | 2.9 | -2.29 | 3.38 | | 3.57 | 5.27 | 3.27 |
| 8/10/2011 | 8.19 | 9.31 | | 14.39 | 17.67 | 3.87 | 3.16 | 3.95 | 1.82 | 2.65 | 2.58 | 2 | 2.96 | -2.27 | 3.38 | | 3.47 | 5.22 | 3.22 |
| 8/11/2011 | 7.97 | 9.05 | 16.48 | 14.35 | 17.7 | 3.76 | 3.06 | 3.83 | 1.69 | 2.62 | 2.5 | 2.35 | 2.75 | -2.38 | 3.33 | | 3.4 | 5.11 | 3.15 |
| 8/12/2011 | 7.91 | 9 | 16.25 | 14.34 | 17.64 | 3.66 | 2.98 | 3.77 | 1.7 | 2.42 | 2.49 | 1.75 | 2.67 | -2.38 | 3.29 | | 3.24 | 5.02 | 3.05 |
| 8/13/2011 | | | 16.05 | 14.3 | 17.46 | 3.6 | 2.91 | 3.61 | | | 2.27 | | | -2.29 | | | | 4.95 | |
| 8/14/2011 | 7.99 | 9.12 | 15.86 | 14.51 | 17.55 | 3.59 | 2.83 | 3.49 | 1.38 | 2.24 | 2.07 | 2.16 | 2.42 | -2.26 | 3.22 | | 2.92 | 4.91 | 2.81 |
| 8/15/2011 | 8.26 | 9.41 | 15.7 | 17.24 | 17.63 | 3.63 | 2.49 | 3.42 | 1.08 | 2.12 | 1.85 | 1.76 | 2.41 | -2.19 | 3.19 | | 2.71 | 4.91 | 2.71 |
| 8/16/2011 | 8.01 | 9.11 | 15.52 | 25.15 | 17.67 | 3.58 | 2.41 | 3.36 | 1.11 | 2.13 | 1.88 | 1.65 | 2.06 | -2.33 | 3.17 | | 2.71 | 4.87 | 2.65 |
| 8/17/2011 | | | 15.41 | 24.52 | 17.23 | 3.47 | 2.34 | 3.26 | 1.03 | 2.23 | 1.74 | 1.81 | 1.93 | -2.29 | 3.15 | | 2.64 | 4.75 | 2.6 |
| 8/18/2011 | 8.12 | 9.24 | 15.17 | 22.62 | 16.95 | 3.58 | 2.27 | 3.4 | 1.25 | 2.39 | 2 | 1.74 | 2.19 | -2.38 | 3.17 | | 2.81 | | 2.66 |
| 8/19/2011 | 7.95 | 9.04 | 14.89 | 23.56 | 17.2 | 3.65 | 2.22 | 3.58 | 1.65 | 2.58 | 2.26 | 1.97 | 2.65 | -2.24 | 3.23 | | 3.13 | | 2.74 |
| 8/20/2011 | 7.32 | 8.3 | 14.64 | 23.34 | 17.12 | 3.59 | 2.18 | 3.57 | 1.58 | 2.72 | 2.35 | 2.04 | 2.36 | -2.33 | 3.31 | | 3.06 | | 2.88 |
| 8/21/2011 | 6.99 | 7.93 | 14.45 | 22.35 | 17.13 | 3.38 | 2.15 | 3.39 | 1.45 | 2.59 | 2.24 | 2.17 | 2.45 | -2.28 | 3.29 | | 2.91 | | 2.75 |
| 8/22/2011 | 6.85 | 7.81 | 14.31 | 21.38 | 17.3 | 3.28 | 2.09 | 3.33 | 1.36 | 2.68 | 2.14 | 2.16 | 2.42 | -2.28 | 3.29 | | 2.94 | | 2.74 |
| 8/23/2011 | 6.83 | 7.74 | 14.22 | 20.53 | 17.18 | 3.2 | 2.12 | 3.39 | 1.6 | 2.51 | 2.29 | 2.05 | 2.42 | -2.21 | 3.27 | | 3.03 | | 2.71 |
| 8/24/2011 | 6.74 | 7.72 | 14.24 | 19.81 | 17.32 | 3.19 | 3.4 | 3.38 | 1.64 | 2.55 | 2.32 | 1.89 | 2.5 | -2.2 | 3.29 | | 3.12 | | 2.66 |

| USACE # | 03075 | 03060 | 40900 | 43500 | 58400 | 03540 | 03615 | 03645 | 03830 | 64650 | 76560 | 76360 | 76400 | 76480 | 52750 | 49365 | 03820 | 49235 | 49725 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8/25/2011 | 6.51 | 7.36 | 14.39 | 19.25 | 17.17 | 3.07 | 3.33 | 3.47 | 1.81 | 2.64 | 2.48 | 2.22 | 2.6 | -2.26 | 3.26 | | 3.18 | | 2.81 |
| 8/26/2011 | 6.42 | 7.32 | 14.39 | 18.8 | 17.31 | 3.12 | 3.26 | 3.42 | 1.61 | 2.65 | 2.41 | 2.23 | 2.53 | -2.27 | 3.3 | | 3.16 | | 2.8 |
| 8/27/2011 | 6.2 | 7.05 | 14.35 | 18.39 | 17.19 | 2.93 | 3.21 | 3.2 | 1.32 | 2.46 | 2.12 | 1.99 | 2.49 | -2.45 | 3.27 | | 3 | | 2.62 |
| 8/28/2011 | 6.02 | 6.89 | 14.3 | 18.01 | 17.16 | 2.74 | 3.1 | 2.78 | 0.77 | 1.97 | 1.67 | | 2.06 | -2.42 | 3.16 | | 2.57 | | 2.24 |
| 8/29/2011 | 5.96 | 6.78 | 14.26 | 17.63 | 17.28 | 2.77 | 2.99 | 2.98 | 1.06 | 2.35 | 1.97 | 1.89 | 2.25 | -2.43 | 3.18 | | 2.72 | | 2.41 |
| 8/30/2011 | 5.93 | 6.73 | 14.22 | 17.24 | 17.11 | 2.79 | 2.93 | 3.17 | 1.27 | 2.41 | 2.21 | 1.78 | 2.53 | -2.46 | 3.2 | | 2.93 | | 2.57 |
| 8/31/2011 | 5.88 | 6.67 | 14.18 | 16.81 | 17.12 | 2.81 | 2.92 | 3.2 | 1.47 | 2.46 | 2.33 | 2.18 | 2.47 | -2.48 | 3.24 | | 2.99 | | 2.55 |
| 9/1/2011 | 5.94 | 6.77 | 14.15 | 16.39 | 16.95 | 2.84 | 2.89 | 3.12 | 1.38 | 2.53 | 2.2 | 1.96 | 2.28 | -2.49 | 3.27 | | 2.94 | | 2.45 |
| 9/2/2011 | 5.95 | 6.64 | 14.14 | 16.01 | 16.43 | 3.07 | 2.87 | 3.7 | 2.2 | 2.38 | 2.89 | 2.24 | 2.96 | -2.39 | 3.37 | | 3.54 | | 2.93 |
| 9/3/2011 | 5.89 | 6.61 | 14.34 | 15.65 | | 3.22 | 3.58 | 4.49 | 3.42 | 2.66 | 3.43 | 2.76 | 3.65 | -2.02 | 3.64 | | 4.49 | | 3.45 |
| 9/4/2011 | 7.07 | 7.73 | 17.1 | 15.34 | | 5.08 | 4.07 | 6.47 | 5.73 | 3.64 | 5.15 | 3.61 | 5.62 | -1.54 | 3.86 | | 6.2 | | 4.72 |
| 9/5/2011 | 8.26 | 9.07 | 25.12 | 15.05 | | 4.67 | 4.09 | 4.5 | 1.47 | 3.72 | 2.94 | 3.7 | 3.38 | -1.55 | 4 | | 3.98 | | 4.2 |
| 9/6/2011 | 7.46 | 8.32 | 24.39 | 14.81 | 18.28 | 3.83 | 4.09 | 3.66 | 1.26 | 2.88 | 2.08 | 3.09 | 3.12 | -2.22 | 3.89 | | 3.47 | | 3.41 |
| 9/7/2011 | 7.1 | 7.89 | 22.43 | 14.64 | | 3.52 | 4.09 | 3.55 | 1.44 | 2.89 | 2.24 | 2.89 | 2.8 | -2.69 | 3.79 | | 3.42 | | 3.1 |
| 9/8/2011 | 6.12 | 6.83 | 23.49 | 14.56 | 17.93 | 3.2 | 4.09 | 3.29 | 1.38 | 2.7 | 2.12 | 2.6 | 2.72 | -2.5 | 3.68 | | 3.25 | | 2.89 |
| 9/9/2011 | 5.68 | 6.41 | 23.23 | 15.2 | 17.16 | 2.93 | 3.95 | 3.12 | 1.12 | 2.5 | 2.06 | 2.29 | 2.43 | -2.58 | 3.58 | | 2.96 | | 2.74 |
| 9/10/2011 | 5.4 | 6.1 | 22.2 | 15.25 | 16.68 | 2.79 | 3.77 | 3.11 | 1.16 | 2.44 | 2.09 | 2.31 | 2.41 | -2.41 | 3.5 | | 3.09 | | 2.63 |
| 9/11/2011 | 5.11 | 5.81 | 21.22 | 14.92 | 17.2 | 2.63 | 3.6 | 3 | 1.2 | 2.34 | 2.1 | 2.22 | 2.5 | -2.24 | 3.41 | | 2.93 | | 2.55 |
| 9/12/2011 | 4.99 | 5.63 | 20.38 | 14.71 | 17.26 | 2.57 | 3.42 | 2.85 | 0.93 | 2.32 | 1.93 | 2.23 | 2.34 | -2.2 | 3.35 | | 2.77 | | 2.43 |
| 9/13/2011 | 5.07 | 5.78 | 19.65 | 14.6 | 17.02 | 2.56 | 3.22 | 2.89 | 0.94 | 2.36 | 2.01 | 2.13 | 2.35 | -2.39 | 3.31 | | 2.81 | | 2.42 |
| 9/14/2011 | 5.33 | 5.91 | 19.08 | 14.53 | 16.46 | 2.57 | 3.02 | 2.84 | 0.97 | 2.28 | 1.97 | 1.92 | 2.18 | -2.14 | 3.29 | | 2.76 | | 2.36 |
| 9/15/2011 | 5.34 | 6.02 | 18.62 | 14.49 | 16.06 | 2.56 | 2.88 | 2.7 | 0.79 | 2.18 | 1.66 | 1.71 | 2.03 | -2.31 | 3.26 | | 2.61 | | 2.22 |
| 9/16/2011 | 5.5 | 6.34 | 18.22 | 14.45 | 15.7 | 2.32 | 2.7 | 2.77 | 1.19 | 2.28 | 1.83 | 1.77 | 2.16 | -2.28 | 3.11 | | 2.7 | | 2.08 |
| 9/17/2011 | 6.06 | 6.9 | 17.84 | 14.42 | 15.94 | 2.74 | 2.65 | 3.05 | 1.29 | 2.52 | 2.13 | 1.6 | 2.48 | -2.55 | 3.18 | 17.82 | 2.92 | | 2.26 |
| 9/18/2011 | 6.07 | 6.93 | 17.45 | | 16.77 | 2.95 | 2.75 | 3.31 | 1.59 | 2.82 | 2.45 | 1.57 | 2.72 | -2.42 | 3.25 | 17.75 | 3.18 | | 2.55 |
| 9/19/2011 | 6.29 | 6.99 | 17.08 | | 17.05 | 3.08 | 2.91 | 3.38 | 1.48 | 2.68 | 2.53 | 2.16 | 2.43 | -2.26 | 3.29 | 17.71 | 3.12 | | 2.72 |
| 9/20/2011 | 5.94 | 6.7 | 16.65 | 14.35 | 16.15 | 2.99 | 3 | 3.08 | 1.24 | 2.44 | 2 | 2.07 | 2.29 | -2.46 | 3.33 | 17.66 | 2.96 | | 2.52 |
| 9/21/2011 | 5.69 | 6.48 | 16.22 | 14.34 | 16.24 | 2.9 | 2.95 | 3.1 | 1.35 | 2.48 | 2.14 | 2.2 | 2.41 | -2.33 | 3.08 | 17.62 | 2.93 | | 2.52 |
| 9/22/2011 | 5.52 | 6.23 | 15.84 | 14.33 | 16.26 | 2.82 | 2.87 | 3.23 | 1.62 | 2.56 | 2.33 | 2.03 | 2.7 | -2.3 | 3.07 | 17.57 | 3.17 | | 2.55 |
| 9/23/2011 | 5.19 | 5.8 | 15.49 | 14.32 | 16.95 | 2.73 | 2.9 | 3.14 | 1.48 | 2.45 | 2.22 | 2.31 | 2.46 | -2.03 | 3.09 | 17.52 | 3.06 | | 2.55 |
| 9/24/2011 | 5.04 | 5.78 | 15.19 | 14.32 | 17.08 | 2.54 | 2.8 | 2.95 | 1.52 | 2.36 | 1.81 | 1.66 | 2.43 | -2.49 | 3.07 | 17.49 | 3.07 | 3.41 | 2.41 |
| 9/25/2011 | 5.02 | 5.73 | 14.9 | 14.31 | 17.45 | 2.63 | 2.76 | 3.05 | 1.34 | 2.49 | 2.12 | 2.15 | 2.38 | -2.39 | 3.08 | 17.44 | 3.01 | 3.44 | 2.49 |
| 9/26/2011 | 5.1 | 5.73 | 14.67 | 14.3 | 17.41 | 2.88 | 2.86 | 3.32 | 1.45 | 2.69 | 2.43 | 2.08 | 2.71 | -2.37 | 3.16 | 17.4 | 3.43 | 3.62 | 2.81 |
| 9/27/2011 | 4.96 | 5.59 | 14.5 | 14.3 | 16.73 | 2.64 | 2.93 | 3 | 0.98 | 2.49 | 1.81 | 2.11 | 2.3 | -2.37 | 3.14 | 17.36 | 3.13 | 3.44 | 2.57 |
| 9/28/2011 | 4.78 | 5.49 | 14.41 | 14.29 | 16.14 | 2.5 | 2.86 | 2.87 | 1.03 | 2.35 | 2.09 | 2.05 | 2.32 | -2.39 | 3.08 | 17.32 | 3.04 | 3.31 | 2.4 |
| 9/29/2011 | 4.74 | 5.44 | 15.14 | 14.3 | 16.35 | 2.38 | 2.86 | 3.2 | 1.76 | 2.48 | 2.46 | 1.64 | 2.34 | -2.25 | 3.04 | 17.39 | 3.48 | 3.29 | 2.56 |
| 9/30/2011 | 4.88 | 5.47 | 15.2 | 14.3 | 16.87 | 2.49 | 2.79 | 2.86 | 1.2 | 2.41 | 2.02 | 1.92 | 2.26 | -2.24 | 3.05 | 17.36 | 2.78 | 3.29 | 2.26 |
| 10/1/2011 | 4.66 | 5.36 | 14.83 | 14.3 | 17.29 | 2.02 | 2.59 | 2.4 | 0.73 | 1.95 | 1.23 | 1.43 | 1.61 | -2.41 | 2.88 | 17.36 | 2.45 | 2.95 | 1.76 |
| 10/2/2011 | | 5.2 | 14.6 | 14.29 | 17.55 | 2.19 | 2.43 | 2.55 | 1.05 | 2.12 | 1.26 | 1.59 | 1.81 | -2.45 | 2.89 | 17.32 | 2.59 | 2.99 | 1.96 |
| 10/3/2011 | 4.47 | 5.1 | 14.46 | 14.29 | 17.46 | 2.23 | 2.35 | 2.61 | 0.86 | 2.14 | 1.7 | 1.65 | 1.71 | -2.49 | 2.92 | 17.28 | 2.68 | 2.97 | 1.84 |

| USACE # | 03075 | 03060 | 40900 | 43500 | 58400 | 03540 | 03615 | 03645 | 03830 | 64650 | 76560 | 76360 | 76400 | 76480 | 52750 | 49365 | 03820 | 49235 | 49725 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/4/2011 | 4.77 | 5.43 | 14.38 | 14.29 | 17.5 | 2.3 | 2.31 | 2.72 | 1.07 | 2.28 | 1.88 | 1.68 | 1.89 | -2.49 | 2.9 | 17.24 | 2.66 | 3.05 | 1.82 |
| 10/5/2011 | 5.12 | 6 | 14.32 | 14.3 | 17.57 | 2.6 | 2.36 | 2.98 | 1.29 | 2.51 | 2.02 | 2.09 | 2.31 | -2.49 | 2.94 | 17.2 | 2.84 | 3.31 | 1.9 |
| 10/6/2011 | 5.34 | 6.14 | 14.28 | 14.29 | 17.62 | 2.64 | 2.48 | 3.02 | 1.52 | 2.55 | 2.22 | 1.82 | 2.13 | -2.5 | 2.96 | 17.16 | 2.96 | 3.39 | 2 |
| 10/7/2011 | 5.41 | 6.17 | 14.27 | 14.29 | 17.68 | 2.7 | 2.63 | 3.12 | 1.45 | 2.63 | 2.2 | 2.15 | 2.35 | -2.51 | 3.01 | 17.13 | 2.99 | 3.52 | 2.45 |
| 10/8/2011 | | | | 14.3 | 17.71 | 2.69 | | 3.1 | | | 2.31 | | | -2.53 | | 17.1 | | | |
| 10/9/2011 | | | | 14.3 | 17.72 | 2.75 | | 3.21 | | | 2.38 | | | -2.54 | | 17.07 | | | |
| 10/10/2011 | 5.06 | 5.64 | 14.24 | 14.3 | 17.72 | 2.78 | 2.83 | 3.09 | 1.26 | 2.64 | 2.33 | 2.27 | 2.47 | -2.55 | 3.17 | 17.05 | 2.98 | 3.47 | 2.55 |
| 10/11/2011 | 4.93 | 5.52 | 14.24 | 14.29 | 17.52 | 2.67 | 2.9 | 2.93 | 1.04 | 2.45 | 2.13 | 2.1 | 2.32 | -2.55 | 3.16 | 17.03 | 2.85 | 3.39 | 2.45 |
| 10/12/2011 | 4.75 | 5.4 | 14.23 | 14.29 | 17.57 | 2.52 | 2.9 | 2.79 | 0.93 | 2.31 | 1.95 | 2.09 | 2.28 | -2.56 | 3.13 | 17.02 | 2.83 | 3.27 | 2.38 |
| 10/13/2011 | 4.76 | 5.33 | 14.22 | 14.29 | 17.67 | 2.54 | 2.81 | 2.8 | 0.94 | 2.31 | 1.89 | 2.07 | 2.23 | -2.57 | 3.11 | 17.07 | 2.94 | 3.24 | 2.4 |
| 10/14/2011 | 4.38 | 5.04 | 14.22 | 14.29 | 17.67 | 2.26 | 2.63 | 2.66 | 0.74 | 2.17 | 1.86 | 1.95 | 2.07 | -2.6 | 3.01 | 17.05 | 2.73 | 2.98 | 2.14 |
| 10/15/2011 | 4.62 | 5.25 | 14.22 | 14.29 | 17.69 | 2.49 | 2.67 | 2.73 | 0.67 | 2.19 | 1.79 | 2.01 | 2.17 | -2.62 | 3.08 | 17.07 | 2.74 | 3.18 | 2.41 |
| 10/16/2011 | 4.46 | 5.05 | 14.22 | 14.29 | 17.71 | 2.46 | 2.62 | 2.82 | 0.96 | 2.37 | 1.94 | 1.79 | 2.44 | -2.64 | 3.07 | 17.05 | 2.9 | 3.11 | 2.36 |
| 10/17/2011 | 4.31 | 4.9 | 14.22 | 14.28 | 17.71 | 2.43 | 2.62 | 2.93 | 1.39 | 2.52 | 2.22 | 2.01 | 2.29 | -2.65 | 3.09 | 17 | 3.06 | 3.08 | 2.41 |
| 10/18/2011 | 4.36 | 4.89 | 14.21 | 14.28 | 17.6 | 2.71 | 2.64 | 3.38 | 1.94 | 3.06 | 2.85 | 2.41 | 2.72 | -2.65 | 3.16 | 16.98 | 3.61 | 3.29 | 2.81 |
| 10/19/2011 | | 3.9 | 14.22 | 14.28 | 17.63 | 1.26 | 2.61 | 2.31 | 1.09 | 2.05 | 1.29 | 1.48 | 1.73 | -2.66 | 2.85 | 17 | 2.78 | 2.39 | 1.48 |
| 10/20/2011 | | 3.65 | 14.22 | 14.29 | 17.62 | 1.38 | 2.04 | 2.18 | 0.58 | 1.8 | 1.43 | 1.48 | 1.65 | -2.69 | 2.82 | 17 | 2.43 | 2.36 | 1.74 |
| 10/21/2011 | | 3.62 | 14.22 | 14.31 | 17.4 | 1.46 | 1.87 | 2.04 | 0.52 | 1.63 | 1.27 | 1.28 | 1.57 | -2.71 | 2.83 | 16.97 | 2.29 | 2.36 | 1.6 |
| 10/22/2011 | | 3.44 | 14.21 | 14.32 | 17.41 | 1.4 | 1.79 | 1.85 | 0.38 | 1.42 | 1.04 | 1.28 | 1.45 | -2.73 | 2.8 | 16.95 | 2.1 | 2.35 | 1.48 |
| 10/23/2011 | | 3.57 | 14.21 | 14.31 | 17.2 | 1.54 | 1.7 | 2.31 | 0.9 | 1.88 | 0.98 | 1.32 | 2.06 | -2.74 | 2.83 | 16.9 | 2.47 | 2.35 | 1.83 |
| 10/24/2011 | | 3.73 | 14.2 | 14.3 | 16.65 | 1.69 | 2.07 | 2.15 | 0.4 | 1.66 | 1.44 | 1.61 | 1.74 | -2.76 | 2.93 | 16.93 | 2.28 | 2.37 | 1.81 |
| 10/25/2011 | 3.28 | 3.51 | 14.21 | 14.3 | 16.48 | 1.33 | 2.08 | 1.74 | 0 | 1.24 | 0.87 | 1.27 | 1.38 | -2.76 | 2.82 | 16.94 | 1.92 | 2.34 | 1.44 |
| 10/26/2011 | 3.3 | 3.89 | 14.2 | 14.3 | 16.72 | 1.64 | 1.95 | 2.1 | 0.38 | 1.59 | 1.21 | 1.59 | 1.61 | -2.78 | 2.9 | 16.9 | 2.17 | 2.36 | 1.74 |
| 10/27/2011 | 3.58 | 4.22 | 14.2 | 14.44 | 16.95 | 1.9 | 2.09 | 2.43 | 0.68 | 1.94 | 1.63 | 1.74 | 1.88 | -2.79 | 2.97 | 16.89 | 2.47 | 2.62 | 2.02 |
| 10/28/2011 | 3.78 | 4.29 | 14.2 | 14.62 | 17.16 | 2.1 | 2.24 | 2.73 | 0.98 | 2.23 | 1.96 | 1.97 | 2.14 | -2.77 | 3.02 | 16.9 | 2.77 | 2.84 | 2.35 |
| 10/29/2011 | | 4.07 | 14.21 | 14.52 | 17.26 | 1.27 | 2.2 | 1.79 | 0.06 | 1.23 | 0.74 | 1.14 | 1.34 | -2.78 | 2.73 | 16.94 | 1.91 | 2.34 | 1.38 |
| 10/30/2011 | 3.82 | 4.5 | 14.21 | 14.46 | 17.35 | 1.89 | 1.86 | 2.69 | 1.19 | 2.25 | 1.94 | 1.38 | 2.28 | -2.8 | 2.81 | 16.92 | 2.7 | 2.67 | 2.08 |
| 10/31/2011 | 4.28 | 4.94 | 14.21 | 14.45 | 17.4 | 2.12 | 2.1 | 2.57 | 0.88 | 2.04 | 1.58 | 1.68 | 1.86 | -2.81 | 2.9 | 16.9 | 2.56 | 2.87 | 2 |
| 11/1/2011 | 4.41 | 5.09 | 14.21 | 14.43 | 17.42 | 2.16 | 2.22 | 2.62 | 0.99 | 2.12 | 1.71 | 1.42 | 2.23 | -2.81 | 2.9 | 16.89 | 2.61 | 2.95 | 2.05 |
| 11/2/2011 | | 4.99 | 14.2 | 14.4 | 17.44 | 2.19 | 2.3 | 2.82 | 1.37 | 2.36 | 2 | 1.65 | 2.08 | -2.82 | 2.7 | 16.85 | 2.83 | 3.02 | 2.13 |
| 11/3/2011 | 4.58 | 5.05 | 14.2 | 17.11 | 17.55 | 2.29 | 2.4 | 2.81 | 1.2 | 2.32 | 1.89 | 1.65 | 2.34 | -2.83 | 2.77 | 16.84 | 2.77 | 3.15 | 2.24 |
| 11/4/2011 | 4.1 | 4.6 | 14.21 | 16.84 | 17.52 | 1.55 | 2.29 | 1.8 | -0.01 | 1.12 | 0.53 | 0.98 | 1.21 | -2.84 | | 16.85 | 1.83 | 2.48 | 1.36 |
| 11/5/2011 | 4.01 | 4.55 | 14.2 | 15.96 | 17.53 | 1.7 | 1.97 | 2.15 | 0.7 | 1.64 | 1.18 | 1.32 | 1.45 | -2.85 | | 16.84 | 2.16 | 2.53 | 1.42 |
| 11/6/2011 | | 4.75 | 14.2 | 15.28 | 17.57 | 2.02 | 2.08 | 2.55 | 0.83 | 1.99 | 1.62 | 1.66 | 1.86 | -2.85 | | 16.82 | 2.44 | 2.86 | 1.64 |
| 11/7/2011 | | 4.85 | 14.19 | 15.53 | 17.62 | 2.03 | 2.25 | 2.31 | 0.68 | 1.76 | 1.21 | 1.57 | 1.69 | -2.86 | | 16.79 | 2.31 | 2.83 | 1.78 |
| 11/8/2011 | | 5.08 | 14.19 | 15.83 | 17.64 | 2.36 | 2.38 | 2.69 | 0.96 | 2.12 | 1.71 | 1.9 | 2.08 | -2.86 | 2.82 | 16.75 | 2.63 | 3.12 | 2.31 |
| 11/9/2011 | 4.82 | 5.2 | 14.2 | 15.51 | | 2.56 | 2.76 | 2.67 | 0.63 | 2.03 | 1.54 | 2.07 | 2.12 | -2.79 | 2.91 | 16.77 | 2.53 | 3.3 | 2.48 |
| 11/10/2011 | 4.59 | 5 | 14.2 | 15.13 | 17.59 | 1.94 | 2.57 | 1.8 | -0.26 | 1.01 | 0.26 | 1.41 | 1.24 | -2.78 | 2.66 | 16.79 | 1.77 | 2.86 | 1.62 |
| 11/11/2011 | 4.2 | 4.71 | 14.2 | 14.86 | 17.55 | 1.83 | 2.22 | 2.21 | 0.36 | 1.6 | 1.18 | 1.46 | 1.64 | -2.8 | 2.61 | 16.8 | 2.09 | 2.67 | 1.57 |
| 11/12/2011 | | 5.13 | 14.2 | 14.72 | 17.68 | 2.31 | 2.25 | 2.51 | 0.56 | 1.89 | 1.42 | 1.65 | 1.87 | -2.81 | 2.73 | 16.77 | 2.36 | 3.05 | 1.65 |

| USACE # | 03075 | 03060 | 40900 | 43500 | 58400 | 03540 | 03615 | 03645 | 03830 | 64650 | 76560 | 76360 | 76400 | 76480 | 52750 | 49365 | 03820 | 49235 | 49725 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11/13/2011 | 4.6 | 5.54 | 14.2 | 14.63 | 17.74 | 2.53 | 2.48 | 2.79 | 0.83 | 2.2 | 1.75 | 1.88 | 2.26 | -2.81 | 2.81 | 16.74 | 2.61 | 3.3 | 2.43 |
| 11/14/2011 | 4.77 | 5.59 | 14.19 | 14.59 | 17.56 | 2.58 | 2.62 | | 1 | 2.37 | 1.93 | 2.04 | 2.39 | -2.81 | 2.84 | 16.72 | 2.77 | 3.36 | 2.48 |
| 11/15/2011 | | 5.55 | 14.19 | 14.57 | 17.4 | 2.64 | 2.77 | | 1.24 | 2.52 | 2.15 | 2.08 | 2.52 | -2.8 | 2.88 | 16.68 | 2.97 | 3.41 | 2.49 |
| 11/16/2011 | | 5.4 | 14.28 | 14.72 | 17.33 | 2.88 | 2.88 | | 1.5 | 2.81 | 2.36 | 2.23 | 2.74 | -2.79 | 2.96 | 16.68 | 3.22 | 3.57 | 2.82 |
| 11/17/2011 | | 4.22 | 14.49 | 14.7 | 17.43 | 2.05 | 2.77 | | 0.21 | 1.87 | 0.83 | 1.83 | 1.76 | -2.77 | 2.88 | 16.64 | 2.27 | 2.85 | 2.08 |
| 11/18/2011 | 3.67 | 4.06 | 14.37 | 14.63 | 17.53 | 1.66 | 2.32 | | 0.94 | 1.9 | 1.61 | 1.56 | 1.74 | -2.8 | 2.64 | 16.66 | 2.45 | 2.43 | 1.63 |
| 11/19/2011 | 4.06 | 4.54 | 14.31 | 14.6 | 17.61 | 2.09 | 2.19 | | 1.16 | 2.22 | 1.79 | 1.65 | 1.91 | -2.81 | 2.74 | 16.6 | 2.71 | 2.79 | 1.89 |
| 11/20/2011 | 4.42 | 4.88 | 14.3 | 14.57 | 17.69 | 2.18 | 2.35 | | 1.12 | 2.05 | 1.56 | 1.69 | 1.92 | -2.82 | 2.76 | 16.6 | 2.61 | 2.92 | 2.03 |
| 11/21/2011 | 4.63 | 5.11 | 14.29 | 14.56 | 17.75 | 2.3 | 2.44 | | 0.74 | 2.06 | 1.41 | 1.76 | 1.93 | -2.83 | 2.81 | 16.6 | 2.44 | 3.07 | 2.05 |
| 11/22/2011 | 4.7 | 5.29 | 14.28 | 14.54 | 17.54 | 2.47 | 2.63 | | 0.62 | 2.15 | 1.49 | 1.82 | 1.99 | -2.83 | 2.86 | 16.6 | | 3.2 | 2.17 |
| 11/23/2011 | | 5.71 | 17.2 | 14.53 | 17.7 | 2.43 | 2.77 | 2.28 | 0.16 | 1.73 | 0.96 | 1.75 | 1.85 | -2.82 | 2.89 | 16.72 | 2.22 | 3.32 | 2.08 |
| 11/24/2011 | 5.72 | 6.39 | 16.87 | 14.5 | 17.68 | 2.5 | 2.68 | | 0.2 | 1.73 | 0.96 | 1.63 | 1.77 | -2.83 | 2.78 | 16.74 | 2.19 | 3.4 | 1.98 |
| 11/25/2011 | 6.37 | 7.1 | 15.96 | 14.49 | 16.66 | 2.99 | 2.8 | | 0.62 | 2.22 | 1.54 | 2.02 | 2.15 | -2.84 | 2.86 | 16.73 | 2.49 | 3.81 | 2.35 |
| 11/26/2011 | 7.15 | 8.07 | 15.31 | 14.49 | 17.16 | 3.5 | 2.99 | | 1.38 | 2.75 | 2.44 | 2.27 | 2.55 | -2.84 | 2.95 | 16.71 | 3.15 | 4.31 | 2.85 |
| 11/27/2011 | 8.75 | 9.83 | 15.39 | 14.54 | 16.6 | 3.95 | 3.13 | | 0.9 | 2.69 | 1.78 | 2.3 | 2.82 | -2.64 | 2.97 | 16.87 | 2.96 | 4.71 | 2.93 |
| 11/28/2011 | 9.37 | 10.57 | 15.78 | 14.57 | 16.71 | 3.91 | 3.21 | | 0.86 | 2.1 | 1.57 | 1.79 | 2.57 | -2.61 | 2.77 | 16.89 | 2.76 | 4.84 | 2.63 |
| 11/29/2011 | 9.93 | 11.2 | 15.52 | 14.57 | 16.96 | 4.1 | 3.23 | | 1.02 | 2.28 | 1.74 | 1.66 | 2.58 | -2.62 | 2.71 | 16.91 | 2.73 | 5.02 | 2.64 |
| 11/30/2011 | 10.64 | 12 | 15.14 | 14.55 | 17.19 | 4.33 | 3.29 | 3.5 | 1.02 | 2.08 | 1.64 | 1.55 | 2.59 | -2.64 | 2.69 | 16.9 | 2.66 | 5.26 | 2.6 |
| 12/1/2011 | 11.48 | 12.89 | 14.85 | 14.85 | 17.33 | 4.69 | 3.35 | 3.71 | 1.2 | 2.3 | 1.82 | 2.24 | 1.76 | -2.65 | 2.76 | 16.9 | 2.77 | 5.54 | 2.74 |
| 12/2/2011 | 12.14 | 13.63 | 14.66 | 15.12 | 17.4 | 4.94 | 3.44 | 3.83 | 1.14 | 2.46 | 1.82 | 2.59 | 2.23 | -2.64 | 2.76 | 16.9 | 2.76 | 5.79 | 2.85 |
| 12/3/2011 | 13.07 | 14.55 | 14.54 | 17.76 | 17.08 | 5.21 | 3.54 | 4.09 | 1.49 | 2.63 | 2.07 | 1.54 | 2.84 | -2.62 | 2.8 | 16.83 | 3.01 | 6.11 | 3 |
| 12/4/2011 | 13.44 | 15 | 14.48 | 17.32 | 16.82 | 5.58 | 3.69 | 4.29 | 1.37 | 2.43 | 2.23 | 2.94 | 2.74 | -2.61 | 2.94 | 16.83 | 3.08 | 6.41 | 3.27 |
| 12/5/2011 | 13.96 | | 14.46 | 17.21 | 16.62 | 5.77 | 3.85 | 4.44 | 1.65 | 2.7 | 2.36 | 2.96 | 2.6 | -2.6 | 2.99 | 16.86 | | 6.66 | 3.47 |
| 12/6/2011 | 14.47 | 16 | 14.66 | 24.48 | 16.52 | 5.94 | 3.97 | 4.42 | 1.01 | 2.51 | 1.9 | 2.65 | 3.04 | -2.57 | 2.99 | 16.86 | 3.06 | 6.92 | 3.55 |
| 12/7/2011 | 14.52 | 16.12 | 14.64 | 24.36 | 16.82 | 5.89 | 4.08 | 4.35 | 0.87 | 2.05 | 1.71 | 2.8 | 2.47 | -2.53 | 2.87 | 16.84 | 2.91 | 7.04 | 3.51 |
| 12/8/2011 | | 17.39 | 14.54 | 25.21 | 17.06 | 6.06 | 4.23 | 4.49 | 0.93 | 2.17 | 1.67 | 2.41 | 2.44 | -2.51 | 2.82 | 16.85 | 2.75 | 7.25 | 3.38 |
| 12/9/2011 | 16.2 | 18.1 | 14.47 | 24.46 | 17.22 | 6.41 | 4.32 | 4.79 | 1.05 | 2.27 | 1.99 | 2.5 | 3.03 | -2.48 | 2.87 | 16.81 | 2.88 | 7.57 | 3.58 |
| 12/10/2011 | 17.55 | 19.65 | 14.44 | 23.7 | 17.35 | 6.76 | 4.43 | 5.06 | 1.03 | 2.14 | 1.9 | 2.2 | 2.84 | -2.46 | 2.87 | 16.81 | 2.85 | 7.92 | 3.68 |
| 12/11/2011 | 18.07 | 20.18 | 14.41 | 23.17 | 17.43 | 7.1 | 4.58 | | 1.19 | 2.12 | 2.06 | 2.54 | 3.11 | -2.44 | 2.87 | 16.79 | 2.95 | 8.27 | 3.82 |
| 12/12/2011 | 18.21 | 20.34 | 14.39 | 22.03 | 17.47 | 7.33 | 4.77 | | 1.41 | 2.37 | 2.41 | 2.32 | 3.45 | -2.44 | 2.88 | 16.79 | 3.1 | 8.54 | 4.02 |
| 12/13/2011 | | 20.46 | 14.38 | 20.83 | 17.49 | 7.51 | 4.94 | 5.81 | 1.51 | 2.35 | 2.6 | 2.77 | 3.69 | -2.42 | 2.96 | 16.72 | 3.28 | 8.77 | 4.21 |
| 12/14/2011 | 18.66 | 20.8 | 14.38 | 19.72 | 17.53 | 7.68 | 5.13 | 6.02 | 1.83 | 2.46 | 2.85 | 2.12 | 4.3 | -2.41 | 2.99 | 16.63 | | 8.97 | 4.4 |
| 12/15/2011 | 19.29 | 21.55 | 14.37 | 18.99 | 17.26 | 7.92 | 5.29 | 6.19 | 1.9 | 2.53 | 2.89 | 2.87 | 4.02 | -2.39 | 3.04 | 16.58 | | 9.19 | 4.6 |
| 12/16/2011 | 19.07 | 21.36 | 14.37 | 18.52 | 17.08 | 8.05 | 5.48 | 6.29 | 1.99 | 2.49 | 2.92 | 3 | 4.08 | -2.38 | 3.06 | 16.57 | | 9.4 | 4.77 |
| 12/17/2011 | 19.29 | 21.6 | 14.43 | 18.07 | 17.57 | 8.02 | 5.61 | 6.19 | 1.61 | 2.29 | 2.47 | 2.97 | 3.98 | -2.36 | 3.05 | 16.57 | | 9.5 | 4.78 |
| 12/18/2011 | 19.54 | 21.81 | 14.45 | 17.64 | 17.74 | 8.16 | 5.77 | 6.25 | 1.61 | 2.48 | 2.41 | 2.85 | 4.09 | -2.36 | 3.03 | 16.59 | | 9.61 | 4.86 |
| 12/19/2011 | 19.65 | 21.98 | 14.45 | 17.25 | 17.58 | 8.28 | 5.92 | 6.4 | 1.65 | 2.63 | 2.74 | 2.9 | 4.52 | -2.35 | 3.07 | 16.6 | | 9.73 | 5.02 |
| 12/20/2011 | 19.9 | 22.23 | 14.44 | 17.44 | 17.46 | 8.46 | 6.07 | 6.59 | 1.68 | 2.59 | 2.9 | 3.08 | 4.41 | -2.34 | 3.09 | 16.61 | | 9.88 | 5.23 |
| 12/21/2011 | 19.75 | 22.05 | 14.85 | 24.5 | 17.75 | 8.51 | 6.24 | 6.66 | 1.69 | 2.85 | 3.01 | 3.1 | 4.53 | -2.29 | 3.15 | 16.68 | | 10.04 | 5.44 |
| 12/22/2011 | | 22.12 | 15.24 | 24.91 | 17.79 | 8.57 | 6.44 | 6.73 | 1.76 | 2.76 | 3.08 | 3.21 | 4.67 | -2.27 | 3.17 | 16.69 | 3.71 | 10.11 | 5.54 |

| USACE # | 03075 | 03060 | 40900 | 43500 | 58400 | 03540 | 03615 | 03645 | 03830 | 64650 | 76560 | 76360 | 76400 | 76480 | 52750 | 49365 | 03820 | 49235 | 49725 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/23/2011 | 20.21 | 22.6 | 17.75 | 23.15 | 17.75 | 8.66 | 6.51 | 6.84 | 1.75 | 2.35 | 2.98 | 3.13 | 4.63 | -2.14 | 3.24 | 16.73 | 3.75 | 10.21 | 5.65 |
| 12/24/2011 | 19.95 | 22.23 | 17.26 | 21.87 | 17.57 | 8.64 | 6.61 | 6.81 | 1.76 | 2.65 | 3 | 3.42 | 4.79 | -2.26 | 3.22 | 16.74 | 3.72 | 10.25 | 5.64 |
| 12/25/2011 | 19.9 | 22.11 | 17.19 | 21.7 | 17.33 | 8.64 | 6.66 |  | 1.84 | 2.55 | 3.1 | 3.31 | 4.86 | -2.38 | 3.21 | 16.76 | 3.78 | 10.28 | 5.69 |
| 12/26/2011 | 20.17 | 22.5 | 24.62 | 21.2 | 17.85 | 8.72 | 6.73 | 6.95 | 1.98 | 2.61 | 3.26 | 3.24 | 5.16 | -2.47 | 3.21 | 16.87 | 3.97 | 10.31 | 5.81 |
| 12/27/2011 | 20.51 | 22.92 | 24.29 | 20.65 | 18.2 | 8.83 | 6.82 | 6.99 | 2.02 | 3.15 | 3.13 | 3.33 | 5.02 | -2.23 | 3.22 | 16.98 | 4.01 | 10.41 | 5.89 |
| 12/28/2011 | 20.5 | 22.79 | 25.15 | 20.13 | 18.22 | 8.85 | 6.91 | 6.95 | 1.85 | 2.55 | 2.92 | 3.32 | 4.92 | -2.27 | 3.24 | 17.01 | 3.86 | 10.47 | 5.84 |
| 12/29/2011 | 20.29 | 22.63 | 24.4 | 21.36 | 18.1 | 8.88 | 6.95 | 7.02 | 2.15 | 2.88 | 3.06 | 3.2 | 4.98 | -2.32 | 3.22 | 17.04 | 4.04 | 10.52 | 5.91 |
| 12/30/2011 | 20.17 | 22.46 | 23.65 | 21.72 | 17.73 | 8.86 | 6.99 | 6.99 | 2.08 | 2.85 | 3.13 | 3.32 | 4.97 | -2.38 | 3.23 | 17.04 | 3.97 | 10.54 | 5.94 |
| 12/31/2011 | 19.81 | 21.99 | 23.1 | 20.81 | 17.17 | 8.75 | 7.03 | 6.87 | 2.02 | 2.31 | 2.97 | 3.31 | 4.92 | -2.44 | 3.23 | 17.07 | 3.91 | 10.5 | 5.91 |

**Table E4. USGS Gages with Available Daily Data**

| Gage Name | USGS # | Latitude | Longitude |
|---|---|---|---|
| Atchafalaya River at Simmesport, LA | 07381490 | 30.9825 | -91.7983 |
| Atchafalaya River at Butte La Rose, LA | 07381515 | 30.2816 | -91.6868 |
| Lower Atchafalaya River at Morgan City, LA | 07381600 | 29.6928 | -91.2119 |
| Lower Grand River at Bayou Sorrel, LA | 07381450 | 30.1555 | -91.3318 |
| Bayou Fusilier of the Swamps near Henderson, LA | 302320091465900 | 30.3889 | -91.7831 |
| Little Bayou Long North of Duck Lake | 295011091184300 | 29.8365 | -91.3119 |
| Arm of Grand Lake near Crook Chene Cove | 300312091320000 | 30.0533 | -91.5333 |
| Lake Pelba at I-10 near Henderson, LA | 302020091435700 | 30.3389 | -91.7325 |
| Chicot Pass near Myette Point near Charenton, LA | 073815450 | 29.8927 | -91.4457 |
| Wax Lake Outlet at Calumet, LA | 07381590 | 29.6980 | -91.3729 |

# Table E5. USGS Atchafalaya Basin Gages Readings

| Date | 07381490 | 07381515 | 07381600 | | 07381450 | | 302320091465900 | 295011091184300 | 300312091320000 | 302020091435700 | 073815450 | 07381590 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) | (ft.msl) | (cfs) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) |
| 1/1/2011 | 9.68 | 4.68 | 2.44 | 77800 | 6.55 | 2420 | | | | | 2.7 | 2.25 | 66100 |
| 1/2/2011 | 8.93 | 4.07 | 1.85 | 75100 | 6.33 | 2280 | | | | | 2.13 | 1.65 | 61700 |
| 1/3/2011 | 8.71 | 3.82 | 1.86 | 61400 | 5.97 | 2100 | | | | | 2 | 1.79 | 54500 |
| 1/4/2011 | 8.64 | 3.99 | 2.05 | 63800 | 5.56 | 1710 | | | | | 2.18 | 2.01 | 55400 |
| 1/5/2011 | 8.54 | 3.92 | 2.05 | 65500 | 5.75 | 2120 | | | | | 2.14 | 1.99 | 54400 |
| 1/6/2011 | 8 | 3.62 | 1.81 | 64100 | 6.12 | 2440 | | | | | 1.91 | 1.68 | 54100 |
| 1/7/2011 | 7.75 | 3.38 | 1.69 | 61400 | 5.85 | 2150 | | | | | 1.73 | 1.58 | 51400 |
| 1/8/2011 | 8.09 | 3.44 | 1.59 | 62900 | 5.45 | 1820 | | | | | 1.71 | 1.47 | 53200 |
| 1/9/2011 | 8.08 | 3.44 | 1.55 | 51500 | 5.12 | 1640 | | | | | 1.68 | 1.56 | 50800 |
| 1/10/2011 | 8.57 | 3.68 | 1.76 | 67200 | 5.06 | 1520 | | | | | 1.89 | 1.67 | 57000 |
| 1/11/2011 | 9.44 | 3.8 | 1.4 | 72800 | 4.82 | 1330 | | | | | 1.82 | 1.21 | 62800 |
| 1/12/2011 | 10.55 | 4.16 | 1.21 | 75400 | 4.55 | 1290 | | | | | 1.94 | 1.09 | 65400 |
| 1/13/2011 | 10.93 | 4.46 | 1.31 | 72200 | 4.48 | 1360 | | | | | 2.13 | 1.28 | 64700 |
| 1/14/2011 | 11.84 | 4.9 | 1.58 | 75200 | 4.46 | 1330 | | | | | 2.46 | 1.61 | 66800 |
| 1/15/2011 | 12.95 | 5.59 | 1.95 | 79800 | 4.37 | 962 | | | | | 2.95 | 1.99 | 72100 |
| 1/16/2011 | 13.43 | 6.05 | 2.21 | 83800 | 4.29 | 461 | | | | | 3.31 | 2.26 | 76300 |
| 1/17/2011 | 13.24 | 6.13 | 2.44 | 85800 | 4.47 | 255 | | | | | 3.46 | 2.49 | 76400 |
| 1/18/2011 | 13 | 6.17 | 2.54 | 89600 | 4.82 | 732 | | | | | 3.52 | 2.52 | 77900 |
| 1/19/2011 | 11.39 | 5.51 | 2.29 | 85000 | 5.27 | 1410 | | | | | 3.09 | 2.18 | 74900 |
| 1/20/2011 | 10.02 | 4.86 | 2.28 | 81700 | 5.41 | 1580 | | | | | 2.75 | 2.21 | 67200 |
| 1/21/2011 | 9.42 | 4.26 | 1.79 | 74500 | 5.18 | 1460 | | | | | 2.23 | 1.6 | 64700 |
| 1/22/2011 | 8.83 | 3.95 | 1.8 | 68700 | 4.97 | 1360 | | | | | 2.08 | 1.69 | 58700 |
| 1/23/2011 | 8.45 | 3.71 | 1.76 | 62000 | 4.68 | 1010 | | | | | 1.94 | 1.72 | 54300 |
| 1/24/2011 | 8.48 | 3.73 | 1.81 | 59100 | 4.52 | 838 | | | | | 1.96 | 1.8 | 53500 |
| 1/25/2011 | 8.98 | 3.97 | 1.93 | 67900 | 5.49 | 1910 | | | | | 2.14 | 1.81 | 59700 |
| 1/26/2011 | 9.34 | 3.99 | 1.63 | 67500 | 5.84 | 2210 | | | | | 2.01 | 1.5 | 60400 |
| 1/27/2011 | 8.43 | 3.71 | 1.61 | 64300 | 5.56 | 1960 | | | | | 1.84 | 1.53 | 56500 |
| 1/28/2011 | 7.97 | 3.41 | 1.55 | 62000 | 5.23 | 1670 | | | | | 1.66 | 1.43 | 53000 |
| 1/29/2011 | 7.79 | 3.26 | 1.48 | 56400 | 4.91 | 1430 | | | | | 1.55 | 1.39 | 51000 |
| 1/30/2011 | 7.6 | 3.3 | 1.66 | 57200 | 4.68 | 1120 | | | | | 1.67 | 1.58 | 50100 |
| 1/31/2011 | 7.58 | 3.29 | 1.82 | 51200 | 5 | 1520 | | | | | 1.73 | 1.79 | 46000 |
| 2/1/2011 | 8.32 | 3.81 | 2.17 | 52800 | 5.34 | 1750 | | | | | 2.14 | 2.1 | 51000 |
| 2/2/2011 | 8.55 | 3.66 | 1.39 | 73200 | 5.59 | 2060 | | | | | 1.75 | 1.08 | 63200 |
| 2/3/2011 | 7.62 | 3.08 | 1.18 | 56300 | 5.42 | 2190 | | | | | 1.36 | 1.06 | 52100 |
| 2/4/2011 | 8.05 | 3.28 | 1.53 | 57300 | 5.28 | 2070 | | | | | 1.61 | 1.45 | 53100 |
| 2/5/2011 | 8.45 | 3.39 | 1.4 | 62300 | 5.55 | 2180 | | | | | 1.61 | 1.27 | 57700 |
| 2/6/2011 | 8.65 | 3.69 | 1.71 | 54800 | 5.57 | 2170 | | | | | 1.88 | 1.71 | 51500 |

| Date | 07381490 | 07381515 | 07381600 | | 07381450 | | 302320091465900 | 295011091184300 | 300312091320000 | 302020091435700 | 073815450 | 07381590 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) | (ft.msl) | (cfs) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) |
| 2/7/2011 | 9.04 | 3.88 | 1.66 | 69800 | 5.44 | 1920 | | | | | 1.95 | 1.48 | 61100 |
| 2/8/2011 | 9.15 | 3.85 | 1.57 | 55400 | 5.12 | 1680 | | | | | 1.87 | 1.54 | 50000 |
| 2/9/2011 | 8.91 | 3.92 | 1.78 | 62200 | 4.93 | 1480 | | | | | 2.01 | 1.72 | 55900 |
| 2/10/2011 | 9.28 | 3.88 | 1.41 | 70800 | 4.94 | 1570 | | | | | 1.85 | 1.24 | 65500 |
| 2/11/2011 | 10.15 | 4.13 | 1.51 | 67600 | 4.97 | 1650 | | | | | 1.97 | 1.44 | 60200 |
| 2/12/2011 | 11.15 | 4.71 | 1.68 | 72600 | 4.77 | 1460 | | | | | 2.36 | 1.64 | 64900 |
| 2/13/2011 | 11.37 | 4.96 | 1.68 | 75500 | 4.59 | 1080 | | | | | 2.52 | 1.63 | 68600 |
| 2/14/2011 | 11.75 | 5.1 | 1.8 | 74100 | 4.44 | 847 | | | | | 2.62 | 1.78 | 66400 |
| 2/15/2011 | 12.3 | 5.47 | 2.03 | 75600 | 4.39 | 708 | | | | | 2.92 | 2.02 | 69200 |
| 2/16/2011 | 12.14 | 5.54 | 2.12 | 79500 | 4.53 | 705 | | | | | 3.02 | 2.09 | 73800 |
| 2/17/2011 | 12.06 | 5.5 | 2.17 | 78100 | 4.96 | 1280 | | | | | 3.02 | 2.14 | 72300 |
| 2/18/2011 | 11.93 | 5.5 | 2.26 | 79200 | 5.15 | 1470 | | | | | 3.06 | 2.21 | 70500 |
| 2/19/2011 | 10.91 | 5.08 | 2.05 | 79800 | 5.24 | 1590 | | | | | 2.8 | 1.96 | 69200 |
| 2/20/2011 | 10.26 | 4.74 | 2.13 | 68200 | 4.94 | 1140 | | | | | 2.63 | 2.09 | 62300 |
| 2/21/2011 | 9.37 | 4.38 | 2.15 | 68000 | 4.83 | 765 | | | | | 2.44 | 2.06 | 58400 |
| 2/22/2011 | 9.37 | 4.15 | 1.92 | 69300 | 4.84 | 855 | | | | | 2.23 | 1.81 | 58200 |
| 2/23/2011 | 8.8 | 3.94 | 1.88 | 60300 | 4.68 | 933 | | | | | 2.1 | 1.82 | 54500 |
| 2/24/2011 | 8.41 | 3.9 | 2.24 | 47300 | 4.74 | 556 | | | | | 2.21 | 2.17 | 47700 |
| 2/25/2011 | 9.16 | 4.06 | 2.13 | 73200 | 5.03 | 795 | | | | | 2.29 | 2.02 | 57400 |
| 2/26/2011 | 9.72 | 4.2 | 2.03 | 67200 | 4.92 | 1030 | | | | | 2.24 | 1.94 | 57500 |
| 2/27/2011 | 10.6 | 4.61 | 2.39 | 55700 | 4.83 | 245 | | | | | 2.63 | 2.36 | 55800 |
| 2/28/2011 | 12.92 | 5.63 | 2.75 | 74500 | 5.08 | 225 | | | | | 3.3 | 2.66 | 68000 |
| 3/1/2011 | 15.39 | 6.52 | 2.38 | 96500 | 5.2 | 1130 | 10.85 | 2.66 | 5.96 | 9.96 | 3.61 | 2.28 | 83600 |
| 3/2/2011 | 16.53 | 7.19 | 2.66 | 97000 | 5.22 | 1310 | 10.8 | 2.87 | 5.96 | 9.87 | 4.09 | 2.68 | 89700 |
| 3/3/2011 | 18.27 | 7.99 | 2.89 | 97300 | 5.11 | 892 | 10.75 | 3.01 | 6.1 | 9.81 | 4.56 | 3.04 | 94800 |
| 3/4/2011 | 20.52 | 9.15 | 3.18 | 107000 | 5.12 | 278 | 10.68 | 3.27 | 6.61 | 9.73 | 5.19 | 3.36 | 102000 |
| 3/5/2011 | 21.89 | 9.78 | 3.59 | 116000 | 5.46 | 593 | 10.6 | 3.63 | 7.43 | 9.69 | 5.77 | 3.79 | 110000 |
| 3/6/2011 | 23.51 | | 3.4 | 140000 | 5.94 | 1590 | 10.76 | 3.77 | 7.97 | 9.83 | 6.03 | 3.41 | 122000 |
| 3/7/2011 | 24.83 | 11.37 | 3.5 | 142000 | 5.97 | 1720 | 11.01 | 3.81 | 8.39 | 10.05 | 6.41 | 3.77 | 125000 |
| 3/8/2011 | 25.88 | 11.91 | 3.82 | 139000 | 6.1 | 1950 | 11.36 | 4.03 | 8.84 | 10.39 | 6.86 | 4.22 | 129000 |
| 3/9/2011 | 27.82 | 12.7 | 4.04 | 153000 | 7.14 | 3570 | 11.71 | 4.33 | 9.34 | 10.76 | 7.32 | 4.42 | 141000 |
| 3/10/2011 | 28.07 | 13.03 | 3.93 | 169000 | 7.28 | 3350 | 12.01 | 4.49 | 9.89 | 11.02 | 7.55 | 4.26 | 152000 |
| 3/11/2011 | 28.22 | 13.12 | 4.02 | 172000 | 7.22 | 3260 | 12.36 | 4.59 | 10.3 | 11.34 | 7.73 | 4.48 | 152000 |
| 3/12/2011 | 28.63 | 13.39 | 4.14 | 181000 | 7.16 | 3180 | 12.71 | 4.77 | 10.64 | 11.68 | 7.91 | 4.61 | 156000 |
| 3/13/2011 | 28.99 | 13.62 | 4.25 | 186000 | 7.08 | 3060 | 13.04 | 4.92 | 10.91 | 12.02 | 8.07 | 4.7 | 161000 |
| 3/14/2011 | 29.24 | 13.82 | 4.43 | 191000 | 6.97 | 2890 | 13.35 | 5.1 | 11.15 | 12.34 | 8.2 | 4.86 | 162000 |
| 3/15/2011 | 29.43 | 13.94 | 4.57 | 196000 | 6.86 | 2620 | 13.6 | 5.26 | 11.33 | 12.59 | 8.27 | 4.91 | 165000 |
| 3/16/2011 | 29.62 | 14.04 | 4.67 | 199000 | 6.67 | 2310 | 13.83 | 5.38 | 11.48 | 12.81 | 8.36 | 4.98 | 165000 |
| 3/17/2011 | 29.9 | 14.2 | 4.82 | 202000 | 6.5 | 1980 | 14.04 | 5.54 | 11.61 | 13.02 | 8.49 | 5.11 | 166000 |

| Date | 07381490 | 07381515 | 07381600 | | 07381450 | | 302320091465900 | 295011091184300 | 300312091320000 | 302020091435700 | 073815450 | 07381590 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) | (ft.msl) | (cfs) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) |
| 3/18/2011 | 30.22 | 14.42 | 4.96 | 206000 | 6.33 | 1720 | 14.21 | 5.7 | 11.76 | 13.22 | 8.63 | 5.21 | 168000 |
| 3/19/2011 | 30.5 | 14.58 | 5.03 | 213000 | 6.19 | 1490 | 14.34 | 5.83 | 11.91 | 13.33 | 8.73 | 5.25 | 170000 |
| 3/20/2011 | 30.43 | 14.63 | 5.12 | 218000 | 6.07 | 1290 | 14.44 | 5.95 | 12.05 | 13.44 | 8.81 | 5.33 | 172000 |
| 3/21/2011 | 30.44 | 14.67 | 5.19 | 216000 | 5.99 | 1090 | 14.52 | 6.05 | 12.16 | 13.53 | 8.85 | 5.38 | 172000 |
| 3/22/2011 | 30.85 | 14.84 | 5.26 | 217000 | 5.92 | 936 | 14.59 | 6.15 | 12.26 | 13.62 | 8.94 | 5.45 | 173000 |
| 3/23/2011 | 30.71 | 14.89 | 5.39 | 215000 | 5.93 | 804 | 14.65 | 6.29 | 12.37 | 13.72 | 9.02 | 5.56 | 174000 |
| 3/24/2011 | 30.92 | 14.94 | 5.31 | 227000 | 5.94 | 829 | 14.71 | 6.35 | 12.45 | 13.75 | 9.03 | 5.47 | 177000 |
| 3/25/2011 | 31.17 | 15.03 | 5.37 | 228000 | 5.89 | 754 | 14.77 | 6.39 | 12.53 | 13.81 | 9.09 | 5.52 | 178000 |
| 3/26/2011 | 31.38 | 15.17 | 5.52 | 223000 | 5.89 | 552 | 14.84 | 6.52 | 12.62 | 13.88 | 9.2 | 5.69 | 177000 |
| 3/27/2011 | 31.54 | 15.26 | 5.55 | 232000 | 5.93 | 644 | 14.9 | 6.67 | 12.72 | 13.94 | 9.29 | 5.75 | 179000 |
| 3/28/2011 | 31.7 | 15.33 | 5.52 | 236000 | 5.93 | 752 | 14.96 | 6.71 | 12.79 | 14.01 | 9.3 | 5.66 | 181000 |
| 3/29/2011 | 31.78 | 15.39 | 5.58 | 235000 | 5.92 | 678 | 15.02 | 6.78 | 12.87 | 14.06 | 9.38 | 5.77 | 183000 |
| 3/30/2011 | 31.96 | 15.52 | 5.67 | 238000 | 6.24 | 1190 | 15.13 | 6.91 | 13.02 | 14.17 | 9.47 | 5.8 | 183000 |
| 3/31/2011 | 32.36 | 15.7 | 5.68 | 242000 | 6.34 | 1420 | 15.21 | 6.92 | 13.07 | 14.26 | 9.53 | 5.79 | 185000 |
| 4/1/2011 | 32.22 | 15.69 | 5.75 | 245000 | 6.31 | 1340 | 15.29 | 7 | 13.12 | 14.32 | 9.61 | 5.89 | 184000 |
| 4/2/2011 | 32.22 | 15.72 | 5.75 | 250000 | 6.28 | 1300 | 15.35 | 7.04 | 13.17 | 14.38 | 9.62 | 5.88 | 186000 |
| 4/3/2011 | 32.17 | 15.74 | 5.82 | 244000 | 6.19 | 1060 | 15.41 | 7.09 | 13.21 | 14.44 | 9.66 | 5.98 | 184000 |
| 4/4/2011 | 31.94 | 15.74 | 6.05 | 232000 | 6.21 | 809 | 15.46 | 7.22 | 13.26 | 14.52 | 9.73 | 6.26 | 179000 |
| 4/5/2011 | 32.22 | 15.79 | 5.82 | 256000 | 6.23 | 910 | 15.51 | 7.21 | 13.28 | 14.55 | 9.72 | 6 | 188000 |
| 4/6/2011 | 31.77 | 15.69 | 5.85 | 244000 | 6.16 | 873 | 15.55 | 7.17 | 13.27 | 14.58 | 9.69 | 5.99 | 184000 |
| 4/7/2011 | 31.1 | 15.5 | 5.83 | 247000 | 6.16 | 784 | 15.57 | 7.18 | 13.23 | 14.6 | 9.6 | 5.95 | 183000 |
| 4/8/2011 | 30.41 | 15.26 | 5.8 | 234000 | 6.18 | 727 | 15.56 | 7.18 | 13.13 | 14.6 | 9.46 | 5.91 | 178000 |
| 4/9/2011 | 29.96 | 15.05 | 5.76 | 228000 | 6.19 | 653 | 15.53 | 7.18 | 13.01 | 14.56 | 9.34 | 5.87 | 176000 |
| 4/10/2011 | 29.56 | 14.93 | 5.72 | 223000 | 6.2 | 590 | 15.48 | 7.17 | 12.91 | 14.51 | 9.27 | 5.87 | 172000 |
| 4/11/2011 | 29.32 | 14.82 | 5.75 | 220000 | 6.23 | 629 | 15.42 | 7.14 | 12.83 | 14.46 | 9.21 | 5.91 | 171000 |
| 4/12/2011 | 29.1 | 14.68 | 5.52 | 219000 | 6.23 | 720 | 15.35 | 7.02 | 12.74 | 14.38 | 9.07 | 5.63 | 175000 |
| 4/13/2011 | 28.35 | 14.45 | 5.43 | 212000 | 6.17 | 802 | 15.27 | 6.89 | 12.62 | 14.29 | 8.92 | 5.52 | 172000 |
| 4/14/2011 | 27.19 | 14.06 | 5.39 | 203000 | 6.13 | 746 | 15.16 | 6.8 | 12.45 | 14.18 | 8.71 | 5.46 | 166000 |
| 4/15/2011 | 26.1 | 13.7 | 5.41 | 202000 | 6.14 | 495 | 15.03 | 6.74 | 12.24 | 14.04 | 8.47 | 5.46 | 158000 |
| 4/16/2011 | 25.87 | 13.45 | 5.1 | 196000 | 6.17 | 772 | 14.86 | 6.56 | 12.02 | 13.88 | 8.2 | 4.98 | 160000 |
| 4/17/2011 | 26.14 | 13.34 | 4.96 | 180000 | 6.09 | 858 | 14.66 | 6.35 | 11.83 | 13.67 | 8.07 | 4.94 | 157000 |
| 4/18/2011 | 25.99 | 13.29 | 5.06 | 182000 | 6.03 | 780 | 14.5 | 6.29 | 11.75 | 13.51 | 8.09 | 5.13 | 153000 |
| 4/19/2011 | 25.89 | 13.18 | 5.06 | 186000 | 6.03 | 525 | 14.36 | 6.28 | 11.69 | 13.36 | 8.03 | 5.15 | 150000 |
| 4/20/2011 | 26.14 | 13.2 | 5.05 | 196000 | 6.08 | 541 | 14.22 | 6.26 | 11.66 | 13.23 | 8.05 | 5.15 | 150000 |
| 4/21/2011 | 26.21 | 13.15 | 4.93 | 199000 | 6.09 | 696 | 14.1 | 6.19 | 11.62 | 13.12 | 7.98 | 5 | 151000 |
| 4/22/2011 | 26.72 | 13.21 | 4.95 | 197000 | 6.05 | 595 | 14.01 | 6.14 | 11.6 | 13.02 | 8 | 5.07 | 150000 |
| 4/23/2011 | 27.65 | 13.46 | 4.97 | 195000 | 6.05 | 582 | 13.96 | 6.13 | 11.64 | 12.97 | 8.11 | 5.14 | 153000 |
| 4/24/2011 | 28.4 | 13.74 | 5 | 194000 | 6.06 | 602 | 13.95 | 6.15 | 11.74 | 12.96 | 8.29 | 5.19 | 157000 |
| 4/25/2011 | 28.61 | 13.94 | 5.15 | 187000 | 6.06 | 446 | 13.99 | 6.19 | 11.89 | 12.98 | 8.45 | 5.44 | 156000 |

| Date | 07381490 | 07381515 | 07381600 | | 07381450 | | 302320091465900 | 295011091184300 | 300312091320000 | 302020091435700 | 073815450 | 07381590 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) | (ft.msl) | (cfs) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) |
| 4/26/2011 | 27.92 | 13.84 | 5.35 | 187000 | 6.16 | 503 | 14.13 | 6.3 | 12.03 | 13.09 | 8.52 | 5.69 | 155000 |
| 4/27/2011 | 28.06 | 13.89 | 5.64 | 186000 | 6.27 | 292 | 14.15 | 6.48 | 12.11 | 13.13 | 8.61 | 5.96 | 153000 |
| 4/28/2011 | 29.56 | 14.23 | 5.23 | 213000 | 6.27 | 751 | 14.14 | 6.4 | 12.2 | 13.15 | 8.62 | 5.38 | 167000 |
| 4/29/2011 | 30.53 | 14.61 | 5.18 | 205000 | 6.21 | 773 | 14.2 | 6.33 | 12.32 | 13.2 | 8.76 | 5.41 | 170000 |
| 4/30/2011 | 30.6 | 14.77 | 5.41 | 204000 | 6.19 | 642 | 14.28 | 6.44 | 12.5 | 13.28 | 8.98 | 5.77 | 170000 |
| 5/1/2011 | 30.88 | 14.9 | 5.45 | 209000 | 6.2 | 541 | 14.38 | 6.54 | 12.66 | 13.37 | 9.09 | 5.78 | 172000 |
| 5/2/2011 | 31.67 | 15.18 | 5.5 | 214000 | 6.21 | 678 | 14.47 | 6.66 | 12.81 | 13.47 | 9.24 | 5.85 | 175000 |
| 5/3/2011 | 32.62 | 15.52 | 5.49 | 224000 | 6.23 | 752 | 14.63 | 6.7 | 12.99 | 13.64 | 9.4 | 5.8 | 184000 |
| 5/4/2011 | 33.75 | 15.96 | 5.51 | 225000 | 6.17 | 886 | 14.75 | 6.7 | 13.21 | 13.76 | 9.59 | 5.86 | 189000 |
| 5/5/2011 | 34.63 | 16.36 | 5.75 | 231000 | 6.09 | 905 | 14.88 | 6.89 | 13.48 | 13.88 | 9.87 | 6.12 | 192000 |
| 5/6/2011 | 35.4 | 16.75 | 5.92 | 246000 | 6.05 | 762 | 15.01 | 7.09 | 13.79 | 14.03 | 10.12 | 6.29 | 195000 |
| 5/7/2011 | 36.2 | 17.16 | 6.11 | 262000 | 6.05 | 539 | 15.16 | 7.31 | 14.09 | 14.19 | 10.37 | 6.51 | 198000 |
| 5/8/2011 | 37.02 | 17.56 | 6.29 | 272000 | 6.09 | 500 | 15.33 | 7.59 | 14.4 | | 10.63 | 6.71 | 202000 |
| 5/9/2011 | 38.18 | 18.07 | 6.46 | 284000 | 6.12 | 491 | 15.5 | 7.88 | 14.74 | | 10.89 | 6.92 | 206000 |
| 5/10/2011 | 39.37 | 18.59 | 6.65 | 300000 | 6.19 | 533 | 15.69 | 8.16 | 15.14 | | 11.17 | 7.14 | 211000 |
| 5/11/2011 | 40.48 | 19.17 | 6.85 | 315000 | 6.25 | 481 | 15.89 | 8.51 | 15.56 | | 11.47 | 7.39 | 216000 |
| 5/12/2011 | 41.15 | 19.5 | 7.01 | 331000 | 6.32 | 520 | 16.1 | 8.93 | 15.92 | | 11.69 | 7.57 | 223000 |
| 5/13/2011 | 42 | 19.88 | 7.26 | 340000 | 6.38 | 506 | 16.31 | 9.36 | 16.2 | | 11.86 | 7.81 | 226000 |
| 5/14/2011 | 43.03 | 20.24 | 7.34 | 356000 | 6.39 | 748 | 16.53 | 9.78 | 16.44 | | 12.02 | 7.87 | 232000 |
| 5/15/2011 | 43.49 | 20.49 | 7.42 | 372000 | 6.33 | 493 | 16.74 | 10.1 | 16.66 | | 12.19 | 7.94 | 238000 |
| 5/16/2011 | 43.66 | 20.67 | 7.62 | 383000 | 6.29 | 551 | 16.95 | 10.48 | 16.84 | | 12.36 | 8.12 | 243000 |
| 5/17/2011 | 43.61 | 20.74 | 7.78 | 392000 | 6.25 | 470 | 17.16 | 10.81 | 16.98 | | 12.52 | 8.28 | 248000 |
| 5/18/2011 | 43.52 | 20.78 | 8 | 398000 | 6.21 | 518 | 17.36 | 11.12 | 17.1 | 16.35 | 12.67 | 8.49 | 249000 |
| 5/19/2011 | 44.03 | 20.93 | 8.21 | 409000 | 6.21 | 510 | 17.55 | 11.42 | 17.26 | 16.54 | 12.83 | 8.69 | 253000 |
| 5/20/2011 | 44.36 | 21.18 | 8.36 | 418000 | 6.19 | 433 | 17.73 | 11.7 | 17.45 | 16.73 | 13.02 | 8.88 | 256000 |
| 5/21/2011 | 44.62 | 21.58 | 8.57 | 432000 | 6.22 | 414 | 17.92 | 12.09 | 17.78 | 16.92 | 13.3 | 9.12 | 263000 |
| 5/22/2011 | 44.77 | 22.01 | 8.86 | 452000 | 6.21 | 341 | 18.11 | 12.62 | 18.24 | 17.12 | 13.76 | 9.44 | 276000 |
| 5/23/2011 | 44.91 | 22.4 | 9.21 | 464000 | 6.19 | 291 | 18.34 | 13.18 | 18.74 | 17.34 | 14.26 | 9.83 | 286000 |
| 5/24/2011 | 44.89 | 22.69 | 9.52 | 467000 | 6.17 | 414 | 18.58 | 13.68 | 19.19 | 17.58 | 14.71 | 10.18 | 296000 |
| 5/25/2011 | 44.77 | 22.92 | 9.82 | 453000 | 6.17 | 379 | 18.84 | 14.07 | 19.54 | 17.85 | 15.09 | 10.49 | 302000 |
| 5/26/2011 | 44.78 | 23.07 | 10.03 | 453000 | 6.16 | 609 | 19.12 | 14.36 | 19.77 | 18.12 | 15.35 | 10.7 | 307000 |
| 5/27/2011 | 44.62 | 23.06 | 10.09 | 463000 | 6.14 | 587 | 19.39 | 14.54 | 19.89 | 18.38 | 15.51 | 10.78 | 312000 |
| 5/28/2011 | 44.26 | 22.97 | 10.14 | 468000 | 6.09 | 476 | 19.62 | 14.6 | 19.92 | 18.62 | 15.57 | 10.84 | 313000 |
| 5/29/2011 | 43.89 | 22.79 | 10.19 | 481000 | 6.07 | 363 | 19.83 | 14.62 | 19.86 | 18.82 | 15.55 | 10.87 | 312000 |
| 5/30/2011 | 43.45 | 22.57 | 10.17 | 487000 | 6.07 | 448 | 19.98 | 14.57 | 19.74 | 18.97 | 15.47 | 10.84 | 311000 |
| 5/31/2011 | 42.93 | 22.3 | 10.11 | 470000 | 6.05 | 368 | 20.08 | 14.44 | 19.56 | 19.06 | 15.33 | 10.73 | 309000 |
| 6/1/2011 | 42.32 | 22.01 | 9.96 | 469000 | 6.02 | 307 | 20.13 | 14.24 | 19.3 | 19.1 | 15.11 | 10.54 | 303000 |
| 6/2/2011 | 41.67 | 21.7 | 9.79 | 474000 | 6 | 378 | 20.13 | 13.99 | 19.02 | 19.09 | 14.86 | 10.36 | 299000 |
| 6/3/2011 | 41.07 | 21.39 | 9.63 | 469000 | 5.99 | 530 | 20.07 | 13.73 | 18.72 | 19.04 | 14.61 | 10.18 | 295000 |

| Date | 07381490 | 07381515 | 07381600 | | 07381450 | | 302320091465900 | 295011091184300 | 300312091320000 | 302020091435700 | 073815450 | 07381590 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) | (ft.msl) | (cfs) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) |
| 6/4/2011 | 40.71 | 21.15 | 9.47 | 462000 | 5.96 | 486 | 19.99 | 13.47 | 18.41 | 18.97 | 14.33 | 9.98 | 289000 |
| 6/5/2011 | 40.41 | 20.92 | 9.28 | 447000 | 5.94 | 550 | 19.93 | 13.19 | 18.13 | 18.9 | 14.07 | 9.73 | 285000 |
| 6/6/2011 | 39.99 | 20.64 | 9.12 | 436000 | 5.91 | 493 | 19.83 | 12.92 | 17.86 | 18.81 | 13.8 | 9.54 | 281000 |
| 6/7/2011 | 39.48 | 20.39 | 8.98 | 417000 | 5.92 | 589 | 19.75 | 12.67 | 17.6 | 18.71 | 13.51 | 9.34 | 274000 |
| 6/8/2011 | 38.88 | 20.09 | 8.81 | 401000 | 5.9 | 711 | 19.65 | 12.4 | 17.34 | 18.61 | 13.27 | 9.15 | 269000 |
| 6/9/2011 | 37.98 | 19.76 | 8.66 | 384000 | 5.88 | 756 | 19.55 | 12.12 | 17.05 | 18.51 | 13.02 | 8.94 | 262000 |
| 6/10/2011 | 37.28 | 19.42 | 8.49 | 365000 | 5.83 | 702 | 19.44 | 11.81 | 16.73 | 18.41 | 12.73 | 8.72 | 254000 |
| 6/11/2011 | 36.51 | 19.09 | 8.32 | 348000 | 5.78 | 658 | 19.32 | 11.47 | 16.4 | 18.29 | 12.44 | 8.48 | 247000 |
| 6/12/2011 | 35.75 | 18.74 | 8.13 | 331000 | 5.78 | 728 | 19.17 | 11.13 | 16.06 | 18.15 | 12.14 | 8.23 | 241000 |
| 6/13/2011 | 34.95 | 18.39 | 7.93 | 315000 | 5.73 | 643 | 19.03 | 10.76 | 15.71 | 18.01 | 11.83 | 7.97 | 233000 |
| 6/14/2011 | 34.2 | 18.05 | 7.71 | 300000 | 5.73 | 598 | 18.87 | 10.39 | 15.37 | 17.85 | 11.54 | 7.7 | 226000 |
| 6/15/2011 | 34.84 | 17.98 | 7.57 | 287000 | 5.74 | 632 | 18.7 | 10.05 | 15.09 | 17.68 | 11.34 | 7.52 | 220000 |
| 6/16/2011 | 32.87 | 17.49 | 7.39 | 278000 | 5.73 | 727 | 18.55 | 9.76 | 14.86 | 17.52 | 11.08 | 7.29 | 215000 |
| 6/17/2011 | 32.14 | 17.1 | 7.22 | 266000 | 5.73 | 762 | 18.36 | 9.41 | 14.5 | 17.33 | 10.78 | 7.05 | 208000 |
| 6/18/2011 | 31.97 | 16.89 | 7.08 | 257000 | 5.69 | 790 | 18.17 | 9.11 | 14.23 | 17.14 | 10.56 | 6.9 | 201000 |
| 6/19/2011 | 31.34 | 16.63 | 6.95 | 249000 | 5.68 | 697 | 17.97 | 8.85 | 14.01 | 16.94 | 10.36 | 6.73 | 197000 |
| 6/20/2011 | 30.33 | 16.26 | 6.88 | 240000 | 5.64 | 684 | 17.77 | 8.61 | 13.78 | 16.73 | 10.13 | 6.64 | 190000 |
| 6/21/2011 | 29.21 | 15.86 | 6.83 | 232000 | 5.7 | 731 | 17.59 | 8.42 | 13.54 | 16.54 | 9.9 | 6.57 | 184000 |
| 6/22/2011 | 29.04 | 15.65 | 6.69 | 228000 | 5.8 | 771 | 17.49 | 8.25 | 13.34 | 16.42 | 9.72 | 6.4 | 182000 |
| 6/23/2011 | 28.63 | 15.5 | 6.56 | 225000 | 6 | 856 | 17.36 | 8.16 | 13.23 | 16.27 | 9.61 | 6.21 | 183000 |
| 6/24/2011 | 27.64 | 15.06 | 6.38 | 219000 | 6.05 | 1070 | 17.12 | 7.91 | 12.98 | 16.04 | 9.33 | 6.06 | 176000 |
| 6/25/2011 | 27.04 | 14.73 | 6.21 | 214000 | 5.96 | 898 | 16.87 | | 12.73 | 15.79 | 9.09 | 5.87 | 172000 |
| 6/26/2011 | 26.51 | 14.38 | 6.03 | 210000 | 5.9 | 898 | 16.62 | | 12.48 | 15.53 | 8.84 | 5.71 | 168000 |
| 6/27/2011 | 26.19 | 14.14 | 5.89 | 202000 | 5.82 | 894 | 16.36 | | 12.26 | 15.33 | 8.67 | 5.6 | 165000 |
| 6/28/2011 | 25.21 | 13.74 | 5.73 | 196000 | 5.76 | 893 | 16.09 | | 12.06 | 15 | 8.44 | 5.43 | 160000 |
| 6/29/2011 | 24.27 | 13.29 | 5.58 | 190000 | 5.73 | 973 | 15.82 | | 11.82 | 14.73 | 8.16 | 5.26 | 156000 |
| 6/30/2011 | 23.59 | 12.84 | 5.4 | 183000 | 5.74 | 1030 | 15.55 | | 11.55 | 14.45 | 7.87 | 5.08 | 151000 |
| 7/1/2011 | 24.13 | 12.82 | 5.23 | 178000 | 5.65 | 976 | 15.26 | | 11.31 | 14.16 | 7.73 | 4.92 | 147000 |
| 7/2/2011 | 24.01 | 12.73 | 5.07 | 176000 | 5.57 | 950 | | | 11.16 | 13.89 | 7.62 | 4.77 | 146000 |
| 7/3/2011 | 24.54 | 12.74 | 4.97 | 172000 | 5.48 | 845 | | | 11.04 | 13.62 | 7.57 | 4.72 | 146000 |
| 7/4/2011 | 24.67 | 12.75 | 4.94 | 171000 | 5.41 | 743 | | | 10.98 | 13.38 | 7.59 | 4.77 | 147000 |
| 7/5/2011 | 24.61 | 12.7 | 4.92 | 169000 | 5.36 | 804 | | | 10.94 | 13.17 | 7.57 | 4.77 | 146000 |
| 7/6/2011 | 24.13 | 12.52 | 4.87 | 168000 | 5.38 | 834 | | | 10.91 | 13.01 | 7.48 | 4.69 | 146000 |
| 7/7/2011 | 24.23 | 12.44 | 4.79 | 167000 | 5.36 | 848 | | | 10.83 | 12.88 | 7.41 | 4.63 | 144000 |
| 7/8/2011 | 24.57 | 12.49 | 4.78 | 165000 | 5.3 | 814 | | | 10.76 | 12.69 | 7.41 | 4.65 | 143000 |
| 7/9/2011 | 24.86 | 12.56 | 4.79 | 163000 | 5.23 | 729 | | | 10.74 | 12.53 | 7.44 | 4.71 | 144000 |
| 7/10/2011 | 24.71 | 12.5 | 4.8 | 162000 | 5.2 | 691 | | | 10.74 | 12.41 | 7.45 | 4.72 | 144000 |
| 7/11/2011 | 24.52 | 12.43 | 4.75 | 162000 | 5.25 | 806 | | | 10.71 | 12.3 | 7.41 | 4.66 | 142000 |
| 7/12/2011 | 23.79 | 12.18 | 4.69 | 159000 | 5.27 | 877 | | | 10.67 | 12.18 | 7.29 | 4.58 | 141000 |

| Date | 07381490 | 07381515 | 07381600 | | 07381450 | | 302320091465900 | 295011091184300 | 300312091320000 | 302020091435700 | 073815450 | 07381590 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) | (ft.msl) | (cfs) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) |
| 7/13/2011 | 23.29 | 11.96 | 4.66 | 156000 | 5.24 | 850 | | | 10.57 | 12.04 | 7.16 | 4.53 | 138000 |
| 7/14/2011 | 23.45 | 11.91 | 4.62 | 155000 | 5.26 | 736 | | | 10.53 | 11.91 | 7.11 | 4.44 | 139000 |
| 7/15/2011 | 23.73 | 11.98 | 4.66 | 153000 | 5.38 | 792 | | | 10.55 | 11.86 | 7.16 | 4.52 | 137000 |
| 7/16/2011 | 23.37 | 11.9 | 4.64 | 155000 | 5.6 | 1030 | | | 10.5 | 11.87 | 7.16 | 4.51 | 135000 |
| 7/17/2011 | 23.08 | 11.76 | 4.55 | 154000 | 5.65 | 1080 | | | 10.43 | 11.82 | 7.03 | 4.4 | 133000 |
| 7/18/2011 | 22.88 | 11.71 | 4.59 | 151000 | 5.65 | 1020 | | | 10.38 | 11.75 | 6.99 | 4.43 | 132000 |
| 7/19/2011 | 21.97 | 11.37 | 4.53 | 150000 | 5.63 | 716 | | | 10.28 | 11.65 | 6.86 | 4.37 | 129000 |
| 7/20/2011 | 21.44 | 11.05 | 4.43 | 149000 | 5.63 | 708 | 12.37 | | 10.11 | 11.48 | 6.65 | 4.24 | 127000 |
| 7/21/2011 | 21.13 | 10.85 | 4.33 | 147000 | 5.6 | 793 | 12.22 | | 9.95 | 11.28 | 6.5 | 4.13 | 126000 |
| 7/22/2011 | 20.39 | 10.53 | 4.26 | 145000 | 5.67 | 992 | 12.03 | 5.1 | 9.8 | 11.09 | 6.35 | 4.05 | 124000 |
| 7/23/2011 | 20.23 | 10.32 | 4.25 | 140000 | 5.7 | 1000 | 11.83 | 5.01 | 9.64 | 10.87 | 6.22 | 4.09 | 119000 |
| 7/24/2011 | 20.08 | 10.21 | 4.21 | 137000 | 5.68 | 891 | 11.61 | 4.95 | 9.56 | 10.62 | 6.16 | 4.07 | 117000 |
| 7/25/2011 | 19.64 | 10.05 | 4.21 | 135000 | 5.66 | 770 | 11.39 | 4.95 | 9.52 | 10.41 | 6.11 | 4.01 | 117000 |
| 7/26/2011 | 17.96 | 9.53 | 4.1 | 133000 | 5.82 | 1080 | 11.26 | 4.89 | 9.38 | 10.29 | 5.84 | 3.84 | 113000 |
| 7/27/2011 | 16.2 | 8.65 | 3.94 | 127000 | 5.83 | 1080 | 11.12 | 4.75 | 9.09 | 10.09 | 5.37 | 3.62 | 106000 |
| 7/28/2011 | 15.68 | 8.25 | 3.84 | 115000 | 5.88 | 1200 | 10.88 | 4.59 | 8.76 | 9.78 | 5.12 | 3.59 | 102000 |
| 7/29/2011 | 15.36 | 7.97 | 3.83 | 114000 | 5.89 | 1290 | 10.68 | 4.47 | 8.5 | 9.5 | 4.97 | 3.65 | 97000 |
| 7/30/2011 | 15.7 | 7.98 | 3.82 | 115000 | 5.84 | 1160 | | 4.38 | 8.3 | 9.16 | 4.94 | 3.65 | 96500 |
| 7/31/2011 | 15.54 | 7.85 | 3.7 | 118000 | 5.79 | 1020 | | 4.33 | 8.1 | 8.77 | 4.85 | 3.46 | 96100 |
| 8/1/2011 | 15.32 | 7.62 | 3.64 | 115000 | 5.8 | 960 | | 4.28 | 7.94 | 8.45 | 4.71 | 3.34 | 93500 |
| 8/2/2011 | 14.8 | 7.28 | 3.45 | 115000 | 5.86 | 1040 | | 4.1 | 7.75 | 8.52 | 4.52 | 3.2 | 91800 |
| 8/3/2011 | 13.96 | 6.9 | 3.27 | 107000 | 5.76 | 968 | | 3.89 | 7.54 | 8.6 | 4.24 | 3.02 | 87900 |
| 8/4/2011 | 13.32 | 6.49 | 3.11 | 103000 | 5.62 | 827 | | 3.68 | 7.35 | 8.65 | 3.96 | 2.87 | 83700 |
| 8/5/2011 | 13.17 | 6.25 | 2.95 | 100000 | 5.55 | 934 | | 3.47 | 7.19 | 8.68 | 3.81 | 2.74 | 79600 |
| 8/6/2011 | 13.85 | 6.46 | 3.04 | 101000 | 5.42 | 811 | | 3.4 | 7.12 | 8.7 | 3.85 | 2.91 | 79600 |
| 8/7/2011 | 13.91 | 6.52 | 3.05 | 100000 | 5.31 | 661 | | 3.39 | 7.06 | 8.72 | 3.92 | 2.89 | 81500 |
| 8/8/2011 | 13.73 | 6.5 | 3.15 | 95700 | 5.26 | 493 | | 3.42 | 7.01 | 8.74 | 3.96 | 3.02 | 78700 |
| 8/9/2011 | 13.71 | 6.48 | 3.16 | 96800 | 5.29 | 475 | | 3.43 | 6.95 | 8.75 | 3.95 | 3.03 | 79500 |
| 8/10/2011 | 13.61 | 6.42 | 3.02 | 100000 | 5.28 | 397 | | 3.36 | 6.88 | 8.75 | 3.88 | 2.84 | 80900 |
| 8/11/2011 | 13.45 | 6.25 | 2.94 | 98700 | 5.26 | 643 | | 3.25 | 6.77 | 8.75 | 3.76 | 2.77 | 78500 |
| 8/12/2011 | 13.46 | 6.21 | 2.86 | 101000 | 5.17 | 549 | | 3.14 | 6.7 | 8.74 | 3.68 | 2.72 | 77100 |
| 8/13/2011 | 13.52 | 6.18 | 2.78 | 107000 | 5.13 | 578 | | 3.05 | 6.64 | 8.74 | 3.63 | 2.66 | 77600 |
| 8/14/2011 | 13.76 | 6.2 | 2.7 | 106000 | 5.15 | 796 | | 2.99 | 6.59 | 8.74 | 3.65 | 2.55 | 78800 |
| 8/15/2011 | 13.98 | 6.3 | 2.63 | 101000 | 5.06 | 736 | | 2.91 | 6.56 | 8.74 | 3.65 | 2.49 | 80100 |
| 8/16/2011 | 13.42 | 6.11 | 2.59 | 95900 | 4.9 | 654 | | 2.84 | 6.48 | 8.74 | 3.58 | 2.46 | 77800 |
| 8/17/2011 | 13.63 | 6.04 | 2.53 | 97000 | 4.87 | 678 | | 2.76 | 6.39 | 8.74 | 3.47 | 2.4 | 75500 |
| 8/18/2011 | 13.78 | 6.19 | 2.65 | 95300 | 5.02 | 833 | | 2.85 | 6.43 | 8.72 | 3.58 | 2.59 | 75700 |
| 8/19/2011 | 13.2 | 6.11 | 2.77 | 93200 | 4.93 | 323 | | 2.93 | 6.44 | 8.7 | 3.62 | 2.73 | 74400 |
| 8/20/2011 | 12.27 | 5.76 | 2.76 | 92000 | 5.02 | 239 | | 2.95 | 6.31 | 8.69 | 3.48 | 2.69 | 72600 |

| Date | 07381490 | 07381515 | 07381600 | | 07381450 | | 302320091465900 | 295011091184300 | 300312091320000 | 302020091435700 | 073815450 | 07381590 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) | (ft.msl) | (cfs) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) |
| 8/21/2011 | 11.91 | 5.51 | 2.66 | 88900 | 5.07 | 538 | | 2.83 | 6.17 | 8.68 | 3.29 | 2.57 | 69700 |
| 8/22/2011 | 11.85 | 5.44 | 2.63 | 88300 | 5.01 | 424 | | 2.8 | 6.08 | 8.67 | 3.22 | 2.5 | 68900 |
| 8/23/2011 | 11.79 | 5.41 | 2.62 | 87300 | 4.99 | 453 | | 2.77 | 6.01 | 8.67 | 3.17 | 2.52 | 68200 |
| 8/24/2011 | 11.66 | 5.37 | 2.63 | 85300 | 5.02 | 430 | | 2.78 | 5.98 | 8.67 | 3.15 | 2.53 | 68100 |
| 8/25/2011 | 11.27 | 5.22 | 2.65 | 83000 | 5.07 | 553 | | 2.76 | 5.96 | 8.66 | 3.08 | 2.56 | 65100 |
| 8/26/2011 | 10.99 | 5.16 | 2.74 | 80900 | 5.07 | 407 | | 2.81 | 5.94 | 8.67 | 3.09 | 2.65 | 61800 |
| 8/27/2011 | 10.86 | 4.98 | 2.56 | 84900 | 5.03 | 549 | | 2.65 | 5.93 | 8.64 | 2.93 | 2.44 | 64900 |
| 8/28/2011 | 10.72 | 4.82 | 2.36 | 83300 | 4.93 | 648 | | 2.44 | 5.93 | 8.62 | 2.75 | 2.23 | 62600 |
| 8/29/2011 | 10.48 | 4.77 | 2.47 | 79000 | 4.84 | 588 | | 2.51 | 5.91 | 8.61 | 2.78 | 2.39 | 60500 |
| 8/30/2011 | 10.41 | 4.75 | 2.54 | 72400 | 4.82 | 317 | | 2.57 | 5.9 | 8.59 | 2.79 | 2.48 | 59100 |
| 8/31/2011 | 10.27 | 4.72 | 2.54 | 70000 | 4.87 | 313 | | 2.6 | 5.9 | 8.57 | 2.8 | 2.5 | 58800 |
| 9/1/2011 | 10.29 | 4.73 | 2.46 | 77100 | 4.93 | 370 | | 2.56 | 5.89 | 8.55 | 2.78 | 2.4 | 60300 |
| 9/2/2011 | 10.14 | 4.85 | 2.76 | 66900 | 5.07 | 486 | | 2.8 | 5.88 | 8.54 | 2.95 | 2.68 | 60400 |
| 9/3/2011 | 10.24 | 5.37 | 3.64 | 43200 | 6.05 | 1230 | | 3.5 | 6.11 | 8.88 | 3.58 | 3.72 | 27000 |
| 9/4/2011 | 11.3 | 6.75 | 5.14 | 36400 | 7.03 | 2090 | | 4.59 | 7.04 | 9.24 | 5.07 | 5.17 | 21600 |
| 9/5/2011 | 12.78 | 6.72 | 3.84 | 110000 | 7.3 | 2250 | | 4.36 | 6.88 | 9.51 | 4.41 | 3.21 | 92500 |
| 9/6/2011 | 11.99 | 6.06 | 3.2 | 101000 | 7.29 | 2170 | 10.77 | 3.72 | 6.57 | 9.6 | 3.76 | 2.63 | 82800 |
| 9/7/2011 | 11.39 | 5.72 | 3 | 92800 | 7.25 | 2050 | 11.43 | 3.34 | 6.41 | 9.84 | 3.49 | 2.61 | 76200 |
| 9/8/2011 | 10 | 5.11 | 2.82 | 81800 | 7.17 | 2080 | 11.93 | 3.08 | 6.24 | 10.26 | 3.14 | 2.48 | 68100 |
| 9/9/2011 | 9.58 | 4.77 | 2.65 | 77900 | 7.06 | 2110 | 12.16 | 2.84 | 6.08 | 10.66 | 2.87 | 2.36 | 63600 |
| 9/10/2011 | 9.15 | 4.58 | 2.6 | 72700 | 6.9 | 2100 | 12.26 | 2.71 | 5.94 | 10.94 | 2.73 | 2.37 | 59500 |
| 9/11/2011 | 8.8 | 4.4 | 2.53 | 67700 | 6.71 | 1970 | 12.3 | 2.61 | 5.84 | 11.12 | 2.61 | 2.36 | 56700 |
| 9/12/2011 | 8.67 | 4.28 | 2.42 | 66600 | 6.49 | 1770 | 12.3 | 2.49 | 5.83 | 11.22 | 2.5 | 2.26 | 55900 |
| 9/13/2011 | 8.98 | 4.34 | 2.42 | 67600 | 6.25 | 1550 | 12.29 | 2.47 | 5.83 | 11.25 | 2.52 | 2.3 | 55700 |
| 9/14/2011 | 9.16 | 4.39 | 2.38 | 69600 | 6 | 1380 | 12.29 | 2.42 | 5.83 | 11.27 | 2.52 | 2.27 | 56000 |
| 9/15/2011 | 9.41 | 4.39 | 2.21 | 77100 | 5.79 | 1300 | 12.27 | 2.29 | 5.82 | 11.27 | 2.46 | 2 | 60300 |
| 9/16/2011 | 10.16 | 4.52 | 2.13 | 70100 | 5.56 | 1340 | 12.24 | 2.14 | 5.81 | 11.24 | 2.43 | 2.04 | 57000 |
| 9/17/2011 | 10.63 | 4.88 | 2.35 | 72000 | 5.33 | 1140 | 12.18 | 2.39 | 5.8 | 11.19 | 2.74 | 2.3 | 60500 |
| 9/18/2011 | 10.64 | 5.01 | 2.54 | 74800 | 5.36 | 1110 | 12.13 | 2.61 | 5.79 | 11.15 | 2.91 | 2.46 | 61600 |
| 9/19/2011 | 10.66 | 5.12 | 2.66 | 75100 | 5.49 | 1140 | 12.12 | 2.72 | 5.78 | 11.15 | 3 | 2.55 | 63100 |
| 9/20/2011 | 10.03 | 4.86 | 2.51 | 75100 | 5.59 | 1290 | 12.05 | 2.57 | 5.78 | 11.08 | 2.81 | 2.41 | 59700 |
| 9/21/2011 | 9.77 | 4.7 | 2.45 | 74500 | 5.32 | 889 | 11.97 | 2.56 | 5.77 | 11 | 2.74 | 2.3 | 61200 |
| 9/22/2011 | 9.38 | 4.58 | 2.57 | 70300 | 5.22 | 717 | 11.88 | 2.61 | 5.78 | 10.91 | 2.72 | 2.52 | 56200 |
| 9/23/2011 | 8.97 | 4.39 | 2.52 | 68700 | 5.23 | 694 | 11.78 | 2.56 | 5.78 | 10.82 | 2.59 | 2.39 | 55900 |
| 9/24/2011 | 8.94 | 4.28 | 2.49 | 61200 | 5.14 | 652 | 11.68 | 2.5 | 5.78 | 10.72 | 2.5 | 2.41 | 53500 |
| 9/25/2011 | 8.69 | 4.3 | 2.66 | 56400 | 5.09 | 187 | 11.58 | 2.63 | 5.78 | 10.62 | 2.58 | 2.61 | 50200 |
| 9/26/2011 | 8.59 | 4.37 | 2.83 | 56400 | 5.23 | 245 | 11.47 | 2.79 | 5.78 | 10.52 | 2.73 | 2.78 | 49500 |
| 9/27/2011 | 8.46 | 4.22 | 2.61 | 61200 | 5.28 | 488 | 11.38 | 2.65 | 5.78 | 10.43 | 2.54 | 2.52 | 51800 |
| 9/28/2011 | 8.31 | 4.09 | 2.5 | 59000 | 5.36 | 836 | 11.3 | 2.52 | 5.8 | 10.35 | 2.41 | 2.39 | 51500 |

| Date | 07381490 | 07381515 | 07381600 | | 07381450 | | 302320091465900 | 295011091184300 | 300312091320000 | 302020091435700 | 073815450 | 07381590 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) | (ft.msl) | (cfs) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) |
| 9/29/2011 | 8.43 | 4.08 | 2.45 | 60100 | 5.71 | 1540 | 11.27 | 2.53 | 5.78 | 10.31 | 2.41 | 2.32 | 52200 |
| 9/30/2011 | 8.58 | 4.05 | 2.24 | 60500 | 5.61 | 1400 | 11.17 | 2.33 | 5.79 | 10.23 | 2.33 | 2.08 | 55700 |
| 10/1/2011 | 8.35 | 3.75 | 1.96 | 55100 | 5.51 | 1640 | 11.07 | 1.95 | 5.76 | 10.13 | 1.99 | 1.79 | 52100 |
| 10/2/2011 | 8.03 | 3.72 | 2.06 | 55700 | 5.11 | 1200 | 10.97 | 2.09 | 5.74 | 10.04 | 2.06 | 1.94 | 51300 |
| 10/3/2011 | 8.09 | 3.66 | 2.04 | 54300 | 4.9 | 905 | 10.88 | 2.06 | 5.72 | 9.95 | 2.02 | 1.93 | 50200 |
| 10/4/2011 | 8.66 | 3.85 | 2.11 | 55300 | 4.98 | 1050 | 10.8 | 2.1 | 5.71 | 9.87 | 2.15 | 2.02 | 51100 |
| 10/5/2011 | 9.22 | 4.18 | 2.31 | 55300 | 5.04 | 1070 | 10.72 | 2.27 | 5.71 | 9.8 | 2.42 | 2.24 | 53200 |
| 10/6/2011 | 9.54 | 4.38 | 2.41 | 54800 | 4.89 | 615 | 10.65 | 2.4 | 5.72 | 9.72 | 2.55 | 2.42 | 53300 |
| 10/7/2011 | 9.28 | 4.45 | 2.51 | 55000 | 4.92 | 382 | 10.62 | 2.5 | 5.72 | 9.66 | 2.62 | 2.53 | 53800 |
| 10/8/2011 | 8.79 | 4.33 | 2.63 | 50900 | 5.05 | 461 | | 2.6 | 5.73 | 9.58 | 2.61 | 2.67 | 50700 |
| 10/9/2011 | 8.61 | 4.31 | 2.73 | 52000 | 5.15 | 98 | | 2.69 | 5.74 | 9.49 | 2.64 | 2.76 | 49400 |
| 10/10/2011 | 8.42 | 4.26 | 2.82 | 55500 | 5.39 | 928 | | 2.73 | 5.73 | 9.41 | 2.63 | 2.81 | 48600 |
| 10/11/2011 | 8.21 | 4.14 | 2.72 | 56300 | 5.5 | 1020 | | 2.69 | 5.73 | 9.34 | 2.58 | 2.65 | 50300 |
| 10/12/2011 | 8.05 | 3.99 | 2.54 | 56400 | 5.44 | 959 | | 2.56 | 5.73 | 9.27 | 2.41 | 2.44 | 50300 |
| 10/13/2011 | 7.97 | 3.9 | 2.41 | 63700 | 5.53 | 1250 | | 2.45 | 5.73 | 9.22 | 2.28 | 2.23 | |
| 10/14/2011 | 7.82 | 3.71 | 2.38 | 54100 | 5.49 | 1360 | | 2.3 | 5.71 | 9.16 | 2.2 | 2.31 | 46700 |
| 10/15/2011 | 7.85 | 3.83 | 2.38 | 54500 | 5.32 | 1100 | | 2.4 | 5.7 | 9.1 | 2.23 | 2.29 | 49500 |
| 10/16/2011 | 7.58 | 3.72 | 2.41 | 52400 | 5.26 | 919 | | 2.41 | 5.69 | 9.04 | 2.2 | 2.32 | 47400 |
| 10/17/2011 | 7.33 | 3.65 | 2.51 | 49000 | 5.17 | 733 | | 2.45 | 5.69 | 8.99 | 2.21 | 2.46 | 43500 |
| 10/18/2011 | 7.05 | 3.76 | 2.67 | 52700 | 5.29 | 501 | | 2.68 | 5.69 | 8.94 | 2.33 | 2.46 | 50200 |
| 10/19/2011 | 6.3 | 2.85 | 1.67 | 54100 | 5.23 | 917 | | 1.74 | 5.64 | 8.88 | 1.34 | 1.31 | 49300 |
| 10/20/2011 | 5.9 | 2.64 | 1.75 | 44300 | 4.97 | 1180 | | 1.65 | 5.63 | 8.82 | 1.29 | 1.56 | |
| 10/21/2011 | 5.66 | 2.63 | 1.76 | 45100 | 4.87 | 806 | 10.6 | 1.69 | 5.61 | 8.77 | 1.34 | 1.66 | 38300 |
| 10/22/2011 | 5.48 | 2.5 | 1.68 | 42900 | 4.72 | 1020 | 10.6 | 1.61 | 5.61 | 8.71 | 1.25 | 1.61 | 37100 |
| 10/23/2011 | 5.52 | 2.77 | 2.2 | 33200 | 4.49 | 247 | 10.6 | 2.02 | 5.61 | 8.7 | 1.5 | 2.2 | |
| 10/24/2011 | 5.72 | 2.8 | 2 | 48100 | 4.75 | 223 | 10.6 | 1.99 | 5.62 | 8.71 | 1.6 | 1.88 | 40600 |
| 10/25/2011 | 5.78 | 2.67 | 1.86 | 40500 | 4.86 | 995 | 10.6 | 1.76 | 5.61 | 8.71 | 1.36 | 1.8 | 35700 |
| 10/26/2011 | 6.16 | 2.91 | 2.06 | 39300 | 4.98 | 1070 | 10.6 | 1.96 | 5.6 | 8.7 | 1.62 | 2.02 | 37600 |
| 10/27/2011 | 6.52 | 3.15 | 2.24 | 42400 | 5.19 | 514 | 10.6 | 2.17 | 5.6 | 8.7 | 1.82 | 2.14 | 39400 |
| 10/28/2011 | 6.81 | 3.25 | 2.05 | 58500 | 5.31 | 895 | 10.6 | 2.15 | 5.58 | 8.7 | 1.81 | 1.78 | 50000 |
| 10/29/2011 | 6.79 | 2.74 | 1.5 | 44500 | 4.99 | 1260 | 10.6 | 1.37 | 5.54 | 8.7 | 1.28 | 1.34 | |
| 10/30/2011 | 7.2 | 3.26 | 2.09 | 45600 | 4.61 | 839 | 10.6 | 1.99 | 5.51 | 8.69 | 1.8 | | |
| 10/31/2011 | 7.66 | 3.49 | 2.05 | 54700 | 4.62 | 520 | 10.6 | 2.05 | 5.5 | 8.68 | 1.93 | 1.97 | |
| 11/1/2011 | 7.91 | 3.61 | 2.09 | 53700 | 4.72 | 729 | 10.6 | 2.09 | 5.49 | 8.67 | 2.01 | 2.01 | 48400 |
| 11/2/2011 | 8.03 | 3.75 | 2.26 | 49500 | 4.73 | 436 | 10.6 | 2.25 | 5.5 | 8.66 | 2.15 | 2.24 | 47300 |
| 11/3/2011 | 8.05 | 3.78 | 2.17 | 64800 | 4.91 | 523 | 10.6 | 2.22 | 5.5 | 8.62 | 2.11 | | |
| 11/4/2011 | 7.77 | 3.26 | 1.55 | 57700 | 4.87 | 758 | 10.6 | 1.56 | 5.47 | 8.55 | 1.58 | 1.36 | 50900 |
| 11/5/2011 | 7.68 | 3.32 | 1.89 | 47000 | 4.78 | 978 | 10.6 | 1.81 | 5.46 | 8.55 | 1.73 | 1.9 | |
| 11/6/2011 | 7.79 | 3.59 | 2.18 | 49200 | 4.87 | 646 | 10.6 | 2.14 | 5.47 | 8.55 | 2.01 | 2.2 | 45400 |

| Date | 07381490 | 07381515 | 07381600 | | 07381450 | | 302320091465900 | 295011091184300 | 300312091320000 | 302020091435700 | 073815450 | 07381590 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) | (ft.msl) | (cfs) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) |
| 11/7/2011 | 7.88 | 3.66 | 2.29 | 46600 | 5.01 | 690 | 10.6 | 2.2 | 5.48 | 8.56 | 2.08 | 2.29 | 44300 |
| 11/8/2011 | 8.05 | 3.93 | 2.58 | 47800 | 4.95 | 250 | 10.6 | 2.52 | 5.49 | 8.56 | 2.38 | 2.58 | 45800 |
| 11/9/2011 | 8.55 | 4 | 2.37 | 69000 | 5.17 | 632 | 10.6 | 2.46 | 5.5 | 8.62 | 2.36 | 2.18 | 54600 |
| 11/10/2011 | 8.23 | 3.58 | 1.64 | 66000 | 5.01 | 1040 | 10.6 | 1.76 | 5.46 | 8.61 | 1.84 | 1.32 | 56800 |
| 11/11/2011 | 7.98 | 3.47 | 2.07 | 47100 | 4.98 | 963 | 10.6 | 1.92 | 5.42 | 8.6 | 1.88 | 2.06 | |
| 11/12/2011 | 8.27 | 3.8 | 2.28 | 45900 | 4.94 | 975 | 10.6 | 2.26 | 5.42 | 8.59 | 2.15 | 2.23 | 46400 |
| 11/13/2011 | 8.69 | 4.08 | 2.44 | 52600 | 4.95 | 322 | 10.6 | 2.47 | 5.43 | 8.59 | 2.42 | 2.37 | 50100 |
| 11/14/2011 | 8.79 | 4.15 | 2.51 | 54300 | 5.22 | 606 | 10.6 | 2.49 | 5.44 | 8.59 | 2.48 | 2.45 | 49900 |
| 11/15/2011 | 8.49 | 4.17 | 2.63 | 52300 | 5.24 | 696 | 10.6 | 2.61 | 5.46 | 8.6 | 2.55 | 2.6 | 47600 |
| 11/16/2011 | 7.64 | 4.05 | 2.76 | 52600 | 5.69 | 1210 | 10.6 | 2.8 | 5.5 | 8.64 | 2.59 | 2.61 | 48500 |
| 11/17/2011 | 7.09 | 3.3 | 1.88 | 66200 | 5.5 | 1250 | 10.6 | 2.08 | 5.49 | 8.63 | 1.82 | 1.5 | 53600 |
| 11/18/2011 | 7.09 | 3.07 | 1.91 | 43900 | 5.3 | 1480 | 10.6 | 1.82 | 5.45 | 8.62 | 1.66 | | |
| 11/19/2011 | 7.54 | 3.47 | 2.25 | 43400 | 5.34 | 1070 | 10.6 | 2.19 | 5.45 | 8.61 | 2.04 | 2.23 | 42900 |
| 11/20/2011 | 8.01 | 3.7 | 2.33 | 49300 | 5.26 | 799 | 10.6 | 2.3 | 5.47 | 8.61 | 2.17 | 2.32 | |
| 11/21/2011 | 8.15 | 3.87 | 2.44 | 49700 | 5.35 | 1120 | 10.6 | 2.41 | 5.49 | 8.61 | 2.28 | 2.4 | 46400 |
| 11/22/2011 | 8.31 | 4.04 | 2.62 | 48900 | 5.43 | 898 | 10.6 | 2.59 | 5.5 | 8.65 | 2.49 | 2.56 | 47600 |
| 11/23/2011 | 9.21 | 4.22 | 2.31 | 73200 | 5.69 | 1420 | 10.6 | 2.4 | 5.5 | 8.69 | 2.41 | 2.1 | 56300 |
| 11/24/2011 | 10.21 | 4.53 | 2.36 | 63900 | 5.41 | 1260 | 10.6 | 2.33 | 5.47 | 8.66 | 2.59 | 2.26 | 56000 |
| 11/25/2011 | 11.1 | 5.05 | 2.58 | 61600 | 5.31 | 1040 | 10.6 | 2.61 | 5.46 | 8.67 | 2.94 | 2.53 | 61300 |
| 11/26/2011 | 12.59 | 5.81 | 3.15 | 51600 | 5.45 | 707 | 10.6 | 3.03 | 5.66 | 8.72 | 3.51 | 3.2 | 61400 |
| 11/27/2011 | 14.8 | 6.67 | 2.84 | 104000 | 5.98 | 1690 | 10.6 | 3.07 | 6.47 | 8.82 | 3.86 | | |
| 11/28/2011 | 15.8 | 6.98 | 2.58 | 108000 | 6.1 | 1990 | 10.6 | 2.78 | 6.57 | 8.82 | 3.9 | | |
| 11/29/2011 | 16.89 | 7.39 | 2.6 | 112000 | 5.89 | 1790 | 10.6 | 2.78 | 6.79 | 8.82 | 4.11 | 2.45 | 88600 |
| 11/30/2011 | 17.78 | 7.86 | 2.69 | 108000 | 5.62 | 1570 | 10.6 | 2.86 | 7.08 | 8.81 | 4.37 | 2.66 | 91400 |
| 12/1/2011 | 18.67 | 8.38 | 2.84 | 111000 | 5.37 | 1300 | 10.6 | 3.04 | 7.39 | 8.81 | 4.71 | 2.85 | 97500 |
| 12/2/2011 | 19.62 | 8.85 | 2.95 | 113000 | 5.28 | 1130 | 10.6 | 3.17 | 7.65 | 8.81 | 4.95 | 2.99 | 102000 |
| 12/3/2011 | 20.62 | 9.48 | 3.18 | 108000 | 5.32 | 965 | 10.6 | 3.36 | 7.99 | 8.83 | 5.29 | 3.36 | 104000 |
| 12/4/2011 | 20.95 | 9.84 | 3.45 | 112000 | 5.35 | 503 | 10.6 | 3.63 | 8.23 | 8.9 | 5.59 | 3.61 | |
| 12/5/2011 | 21.66 | 10.19 | 3.64 | 122000 | 5.47 | 328 | 10.6 | 3.83 | 8.42 | 9.04 | 5.81 | | |
| 12/6/2011 | 21.98 | 10.42 | 3.54 | 143000 | 5.57 | 811 | 10.6 | 3.9 | 8.57 | 9.17 | 5.9 | | |
| 12/7/2011 | 22.61 | 10.56 | 3.34 | 145000 | 5.48 | 940 | 10.6 | 3.8 | 8.69 | 9.28 | 5.88 | 3.2 | 121000 |
| 12/8/2011 | 23.73 | 11.07 | 3.42 | 139000 | 5.33 | 985 | 10.6 | 3.79 | 8.95 | 9.41 | 6.11 | | |
| 12/9/2011 | 24.93 | 11.6 | 3.56 | 146000 | 5.44 | 1080 | 10.6 | 3.96 | 9.25 | 9.59 | 6.44 | | |
| 12/10/2011 | 26.44 | 12.32 | 3.63 | 154000 | 5.47 | 1140 | 10.73 | 4.07 | 9.56 | 9.83 | 6.81 | | |
| 12/11/2011 | 26.89 | 12.67 | 3.77 | 160000 | 5.33 | 970 | 10.99 | 4.22 | 9.87 | 10.09 | 7.12 | | |
| 12/12/2011 | 27.05 | 12.84 | 3.96 | 160000 | 5.24 | 571 | 11.25 | 4.4 | 10.16 | 10.35 | 7.34 | 4.29 | 142000 |
| 12/13/2011 | 27.24 | 12.99 | 4.11 | 161000 | 5.27 | 354 | 11.49 | 4.6 | 10.41 | 10.58 | 7.51 | 4.44 | 145000 |
| 12/14/2011 | 27.82 | 13.24 | 4.29 | 163000 | 5.38 | 303 | 11.71 | 4.79 | 10.64 | 10.81 | 7.7 | 4.63 | 147000 |
| 12/15/2011 | 28.51 | 13.58 | 4.47 | 170000 | 5.5 | 404 | 11.95 | 5 | 10.89 | 11.05 | 7.94 | 4.79 | 151000 |

| Date | 07381490 | 07381515 | 07381600 | | 07381450 | | 302320091465900 | 295011091184300 | 300312091320000 | 302020091435700 | 073815450 | 07381590 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) | (ft.msl) | (cfs) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (ft.msl) | (cfs) |
| 12/16/2011 | 28.21 | 13.58 | 4.6 | 174000 | 5.64 | 704 | 12.17 | 5.18 | 11.1 | 11.28 | 8.02 | 4.83 | 154000 |
| 12/17/2011 | 28.74 | 13.74 | 4.59 | 182000 | 5.62 | 693 | 12.38 | 5.26 | 11.24 | 11.49 | 8.04 | 4.72 | 157000 |
| 12/18/2011 | 28.96 | 13.86 | 4.7 | 182000 | 5.58 | 640 | 12.58 | 5.37 | 11.36 | 11.67 | 8.16 | | |
| 12/19/2011 | 29.22 | 14.01 | 4.88 | 181000 | 5.6 | 484 | 12.76 | 5.52 | 11.49 | 11.85 | 8.31 | 5.06 | |
| 12/20/2011 | 29.3 | 14.16 | 5.06 | 185000 | 5.69 | 473 | 12.95 | 5.71 | 11.67 | 12.04 | 8.46 | 5.24 | 158000 |
| 12/21/2011 | 29.05 | 14.17 | 5.2 | 187000 | 5.9 | 831 | 13.14 | 5.89 | 11.85 | 12.23 | 8.5 | | |
| 12/22/2011 | 29.29 | 14.27 | 5.3 | 188000 | 5.98 | 866 | 13.3 | 6.02 | 11.93 | 12.4 | 8.56 | | |
| 12/23/2011 | 29.62 | 14.47 | 5.3 | 198000 | 6.06 | 1080 | 13.48 | 6.1 | 12.02 | 12.58 | 8.65 | | |
| 12/24/2011 | 29.14 | 14.34 | 5.3 | 196000 | 6.07 | 1030 | 13.66 | 6.12 | 12.08 | 12.76 | 8.62 | | |
| 12/25/2011 | 29.16 | 14.34 | 5.33 | 193000 | 6.05 | 939 | 13.84 | 6.16 | 12.11 | 12.93 | 8.62 | | |
| 12/26/2011 | 29.57 | 14.51 | 5.47 | 193000 | 6.08 | 943 | 14.09 | 6.27 | 12.17 | 13.17 | 8.72 | | |
| 12/27/2011 | 30.05 | 14.74 | 5.47 | 201000 | 6.34 | 1380 | 14.41 | 6.35 | 12.25 | 13.47 | 8.82 | | |
| 12/28/2011 | 29.96 | 14.74 | 5.42 | 207000 | 6.36 | 1430 | 14.76 | 6.35 | 12.32 | 13.81 | 8.84 | | |
| 12/29/2011 | 29.7 | 14.74 | 5.52 | 204000 | 6.28 | 1250 | 15.07 | 6.41 | 12.37 | 14.13 | 8.87 | 5.47 | |
| 12/30/2011 | 29.31 | 14.71 | 5.53 | 204000 | 6.2 | 999 | 15.33 | 6.46 | 12.41 | 14.39 | 8.83 | 5.45 | |
| 12/31/2011 | 28.65 | 14.53 | 5.47 | 204000 | 6.14 | 873 | 15.49 | 6.45 | 12.38 | 14.56 | 8.72 | | |